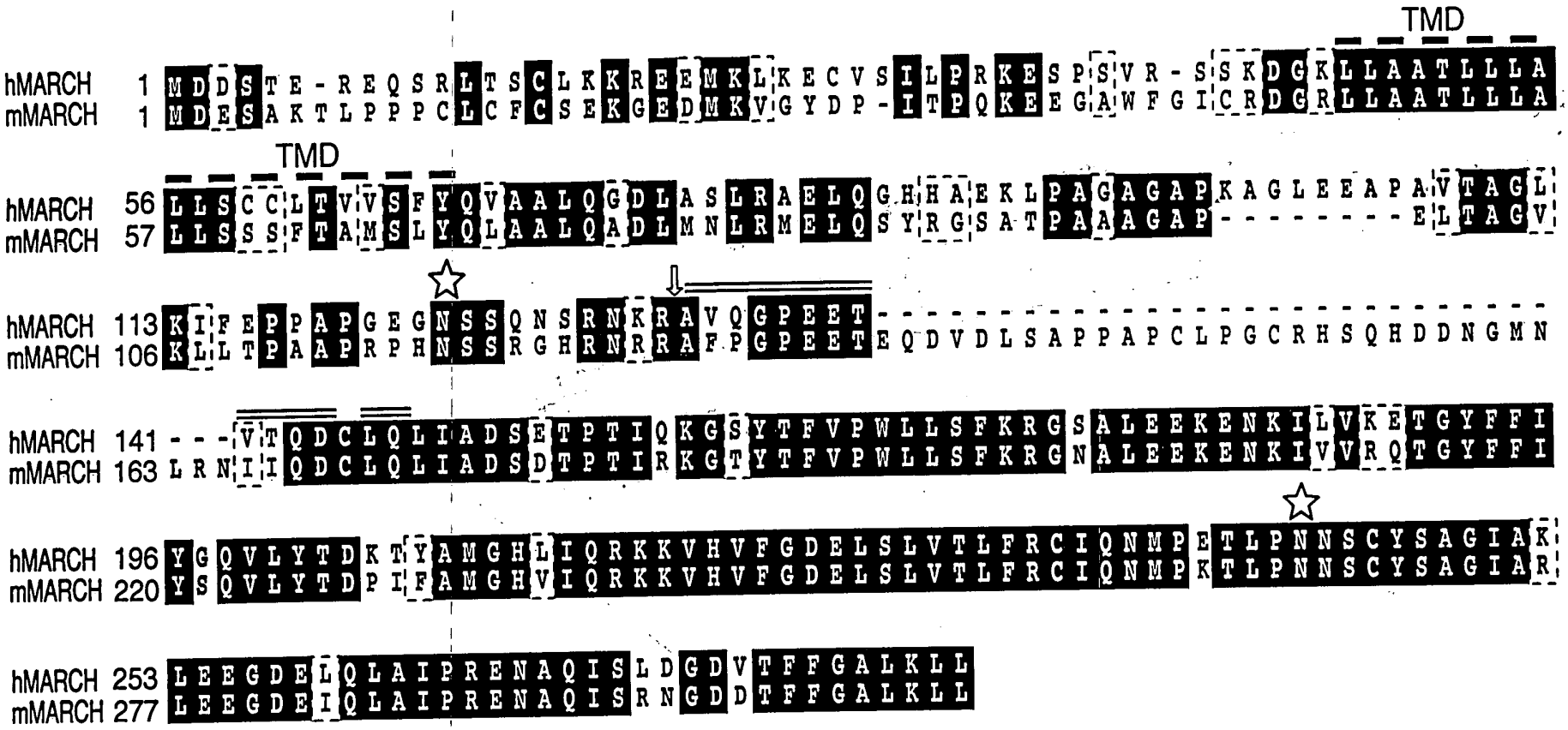

TMD
TMD
hMARCH 1 MDDSTE-REQSRLTSCLKKREEMKLKECVSILPRKESPSVR-SSKDGKLLAATLLLA
mMARCH 1 MDESAKTLPPPCLCFCSEKGEDMKVGYDP-ITPQKEEGAWFGICRDGRLLAATLLLA
hMARCH 56 LLSCCLTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGL
mMARCH 57 LLSSSFTAMSLYQLAALQADLMNLRMELQSYRGSATPAAAGAP--------ELTAGV
hMARCH 113 KIFEPPAPGEGNSSQNSRNKRAVQGPEET----------
mMARCH 106 KLLTPAAPRPHNSSRGHRNRRAFPGPEETEQDVDLSAPPAPCLPGCRHSQHDDNGMN
hMARCH 141 ---VTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEEKENKILVKETGYFFI
mMARCH 163 LRNIIQDCLQLIADSDTPTIRKGTYTFVPWLLSFKRGNALEEKENKIVVRQTGYFFI
hMARCH 196 YGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETLPNNSCYSAGIAK
mMARCH 220 YSQVLYTDPIFAMGHVIQRKKVHVFGDELSLVTLFRCIQNMPKTLPNNSCYSAGIAR
hMARCH 253 LEEGDELQLAIPRENAQISLDGDVTFFGALKLL
mMARCH 277 LEEGDEIQLAIPRENAQISRNGDDTFFGALKLL

FIG. 1A

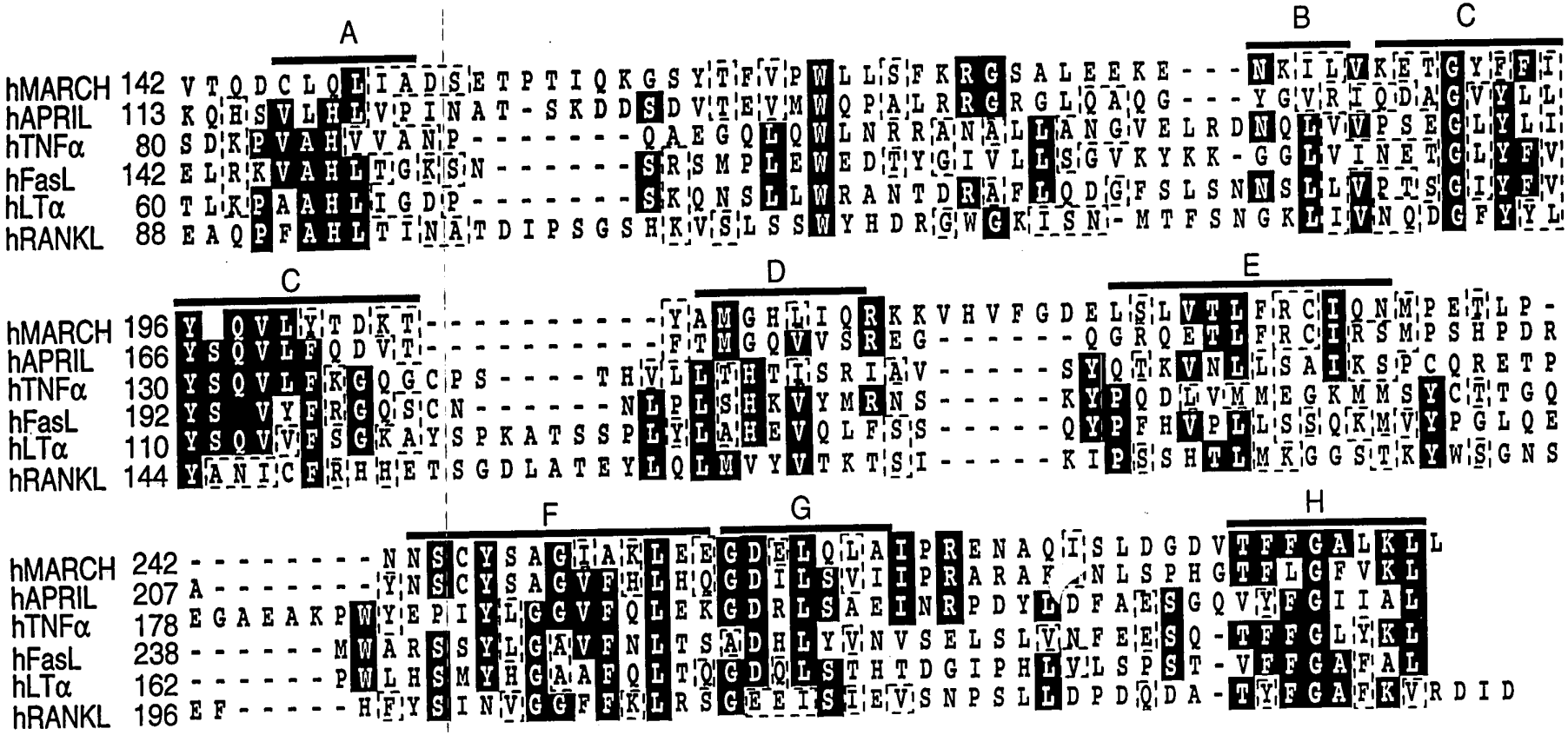

A
B
C
C
D
E
F
G
H
hMARCH 142 VTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEEKE---NKILVKETGYFFI
hAPRIL 113 KQHSVLHLVPINAT-SKDDSDVTEVMWQPALRRGRGLQAQG---YGVRIQDAGVYLL
hTNFα 80 SDKPVAHVVANP--------QAEGQLQWLNRRANALLANGVELRDNQLVVPSEGLYLI
hFasL 142 ELRKVAHLTGKSN-------SRSMPLEWEDTYGIVLLSGVKYKK-GGLVINETGLYFV
hLTα 60 TLKPAAHLIGDP-------SKQNSLLWRANTDRAFLQDGFSLSNNSLLVPTSGIYFV
hRANKL 88 EAQPFAHLTINATDIPSGSHKVSLSSWYHDRGWGKISN-MTFSNGKLIVNQDGFYYL
hMARCH 196 YQVLYTDKT----------YAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETLP-
hAPRIL 166 YSQVLFQDVT----------FTMGQVVSREG------QGRQETLFRCIRSMPSHPDR
hTNFα 130 YSQVLFKGQGCPS----THVLLTHTISRIAV-----SYQTKVNLLSAIKSPCQRETP
hFasL 192 YS VYFRGQSCN------NLPLSHKVYMRNS-----KYPQDLVMMEGKMMSYCTTGQ
hLTα 110 YSQVVFSGKAYSPKATSSPLYLAHEVQLFSS-----QYPFHVPLLSSQKMVYPGLQE
hRANKL 144 YANICFRHHETSGDLATEYLQLMVYVTKTSI-----KIPSSHTLMKGGSTKYWSGNS
hMARCH 242 ---------NNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL
hAPRIL 207 A--------YNSCYSAGVFHLHQGDILSVIIPRARAFNLSPHGTFLGFVKL
hTNFα 178 EGAEAKPWYEPIYLGGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIIAL
hFasL 238 ------MWARSSYLGAVFNLTSADHLYVNVSELSLVNFEESQ-TFFGLYKL
hLTα 162 ------PWLHSMYHGAAFQLTQGDQLSTHTDGIPHLVLSPST-VFFGAFAL
hRANKL 196 EF-----HFYSINVGGFFKLRSGEEISIEVSNPSLLDPDQDA-TYFGAFKVRDID

FIG. 1B

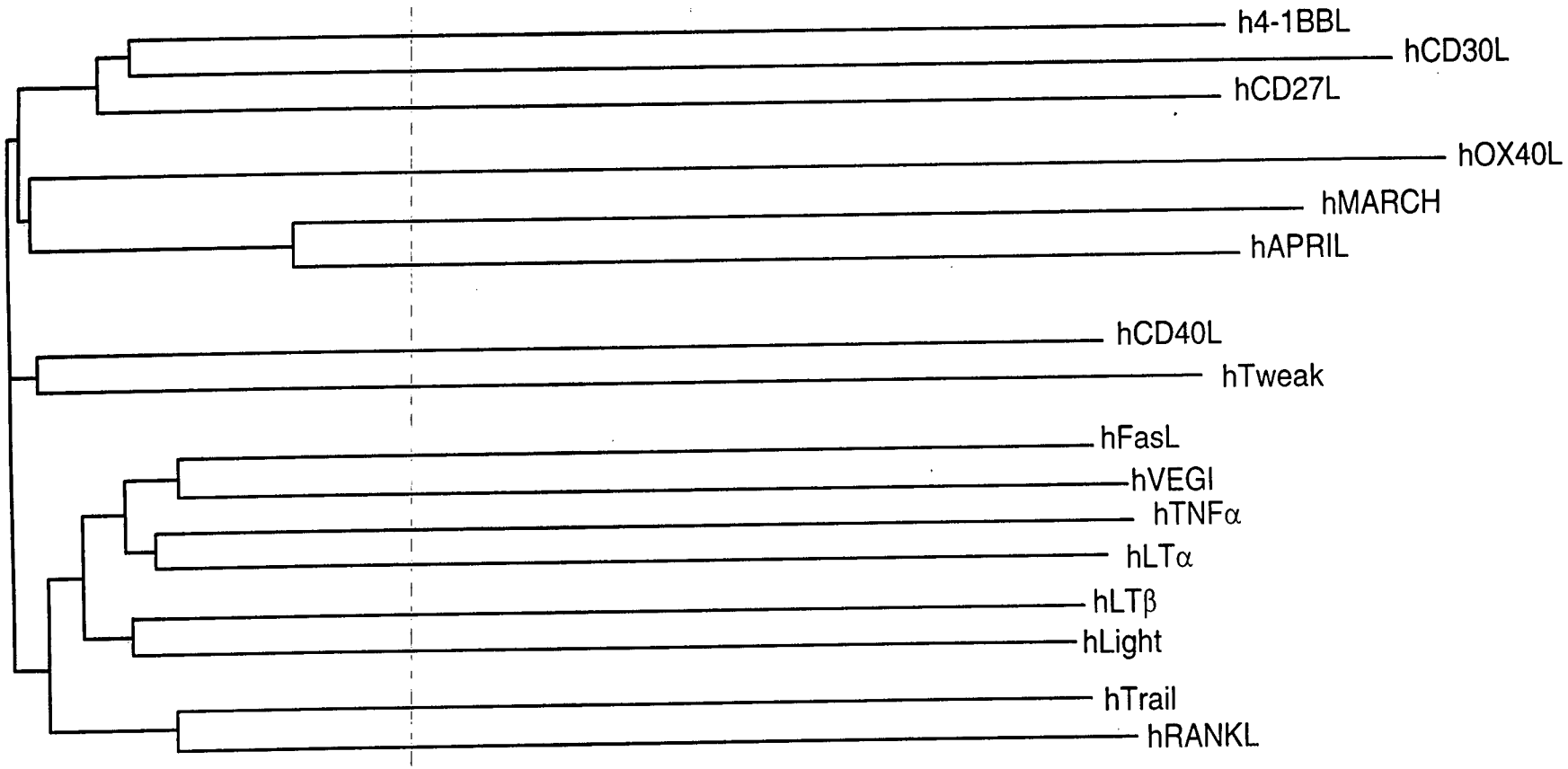

h4-1BBL
hCD30L
hCD27L
hOX40L
hMARCH
hAPRIL
hCD40L
hTweak
hFasL
hVEGI
hTNFα
hLTα
hLTβ
hLight
hTrail
hRANKL

FIG. 1C

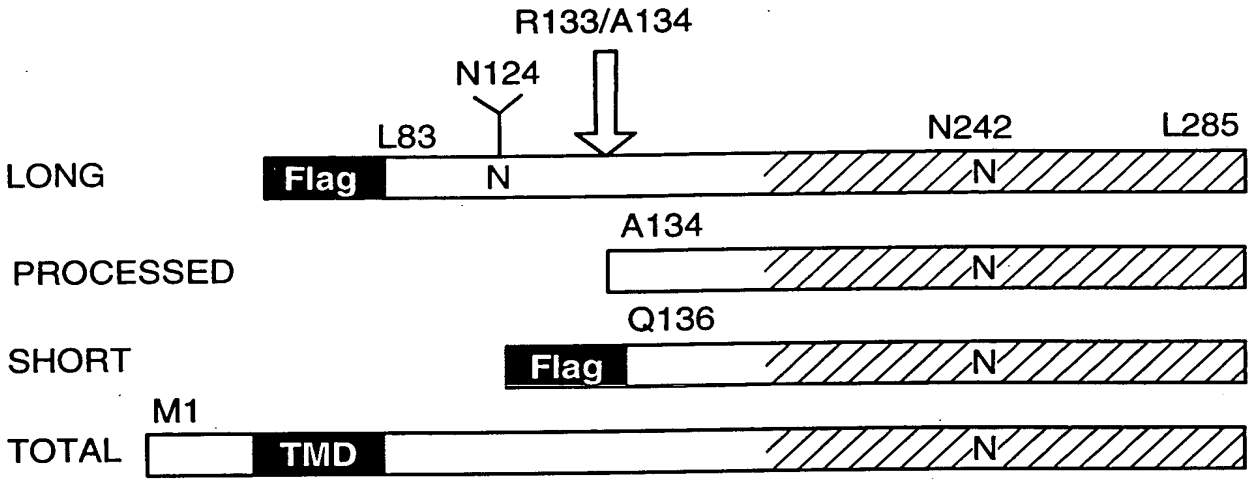

R133/A134
N124
L83
N242
L285
LONG
Flag
N
N
A134
PROCESSED
N
Q136
SHORT
Flag
N
M1
TOTAL
TMD
N

FIG. 2A

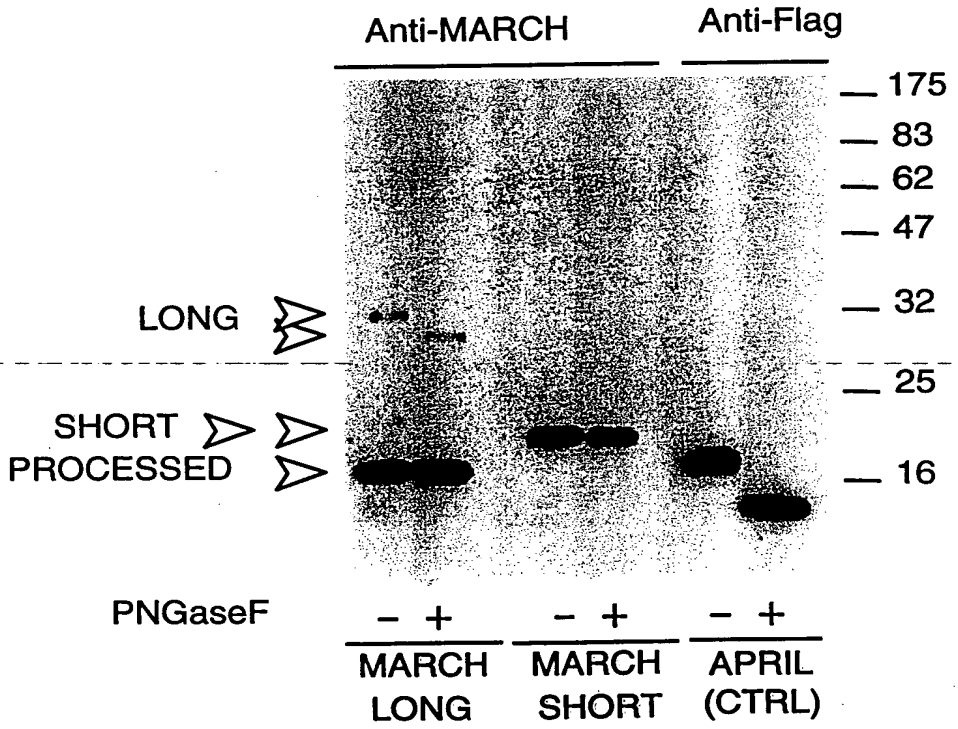

Anti-MARCH
Anti-Flag
175
83
62
47
32
25
16
LONG
SHORT
PROCESSED
PNGaseF
- + - + - +
MARCH LONG
MARCH SHORT
APRIL (CTRL)

FIG. 2B

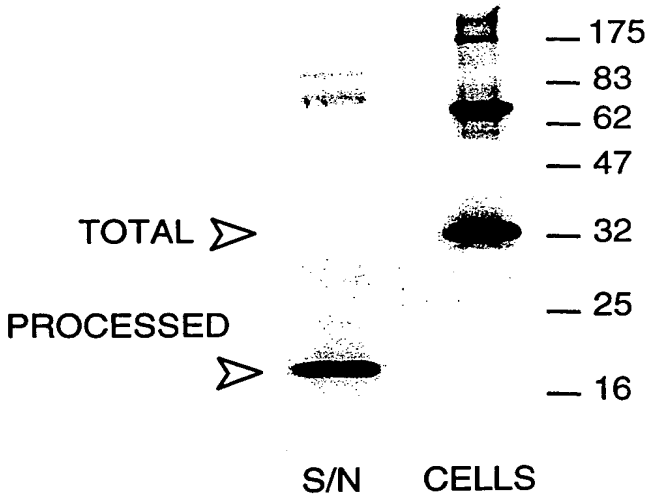

175
83
62
47
TOTAL
32
25
PROCESSED
16
S/N
CELLS

FIG. 2C

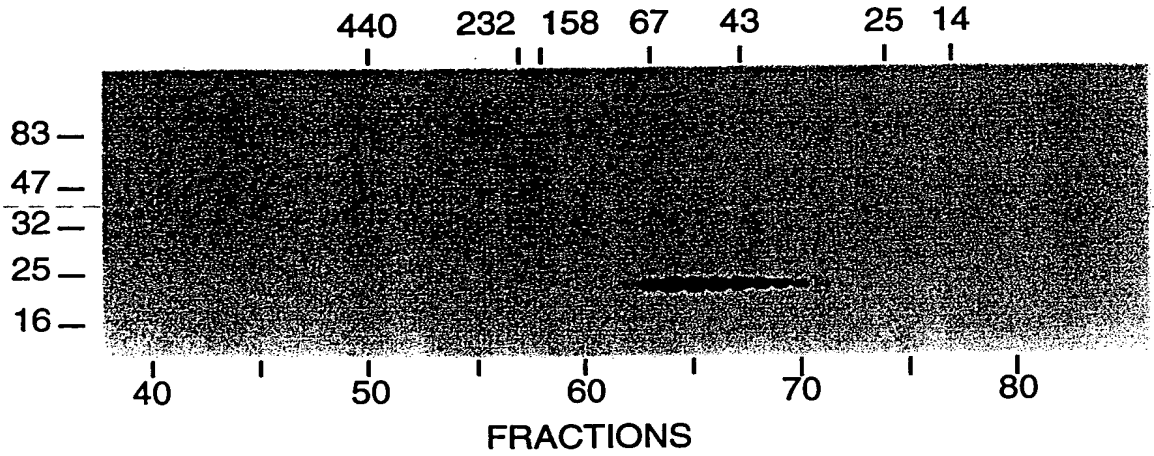

440
232
158
67
43
25
14
83
47
32
25
16
40
50
60
70
80
FRACTIONS

FIG. 2D

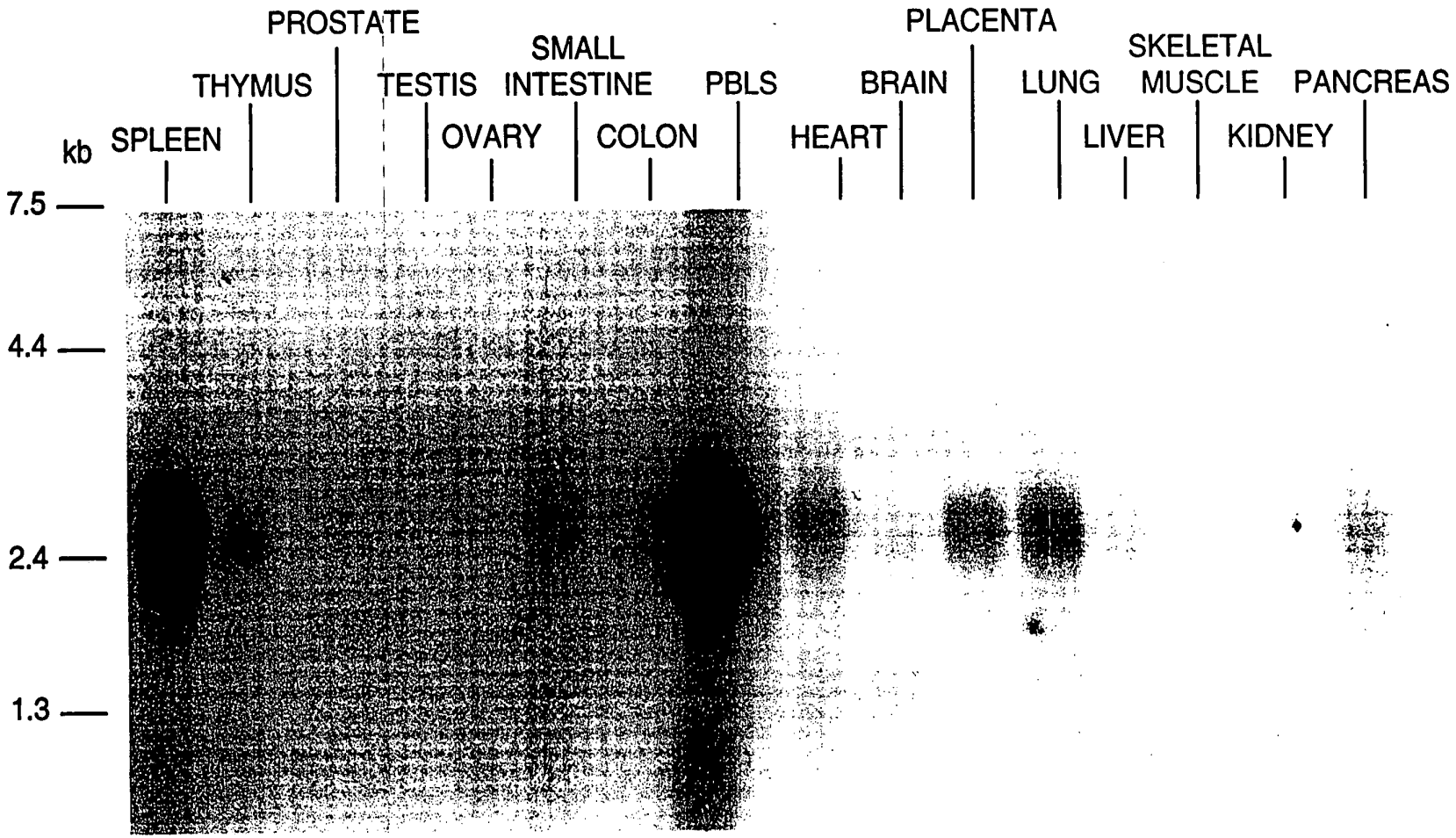

kb
7.5
4.4
2.4
1.3
SPLEEN
THYMUS
PROSTATE
TESTIS
OVARY
SMALL INTESTINE
COLON
PBLS
HEART
BRAIN
PLACENTA
LUNG
LIVER
SKELETAL MUSCLE
KIDNEY
PANCREAS

FIG. 3A

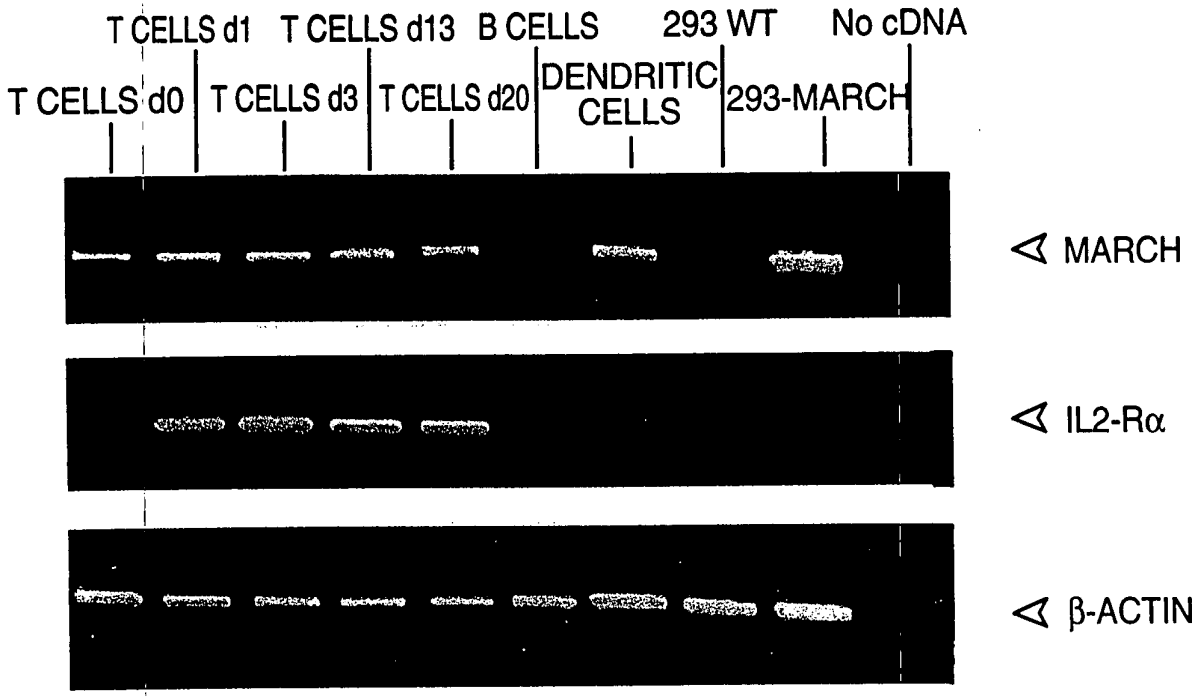

T CELLS d0
T CELLS d1
T CELLS d3
T CELLS d13
T CELLS d20
B CELLS
DENDRITIC CELLS
293 WT
293-MARCH
No cDNA
MARCH
IL2-Rα
β-ACTIN

FIG. 3B

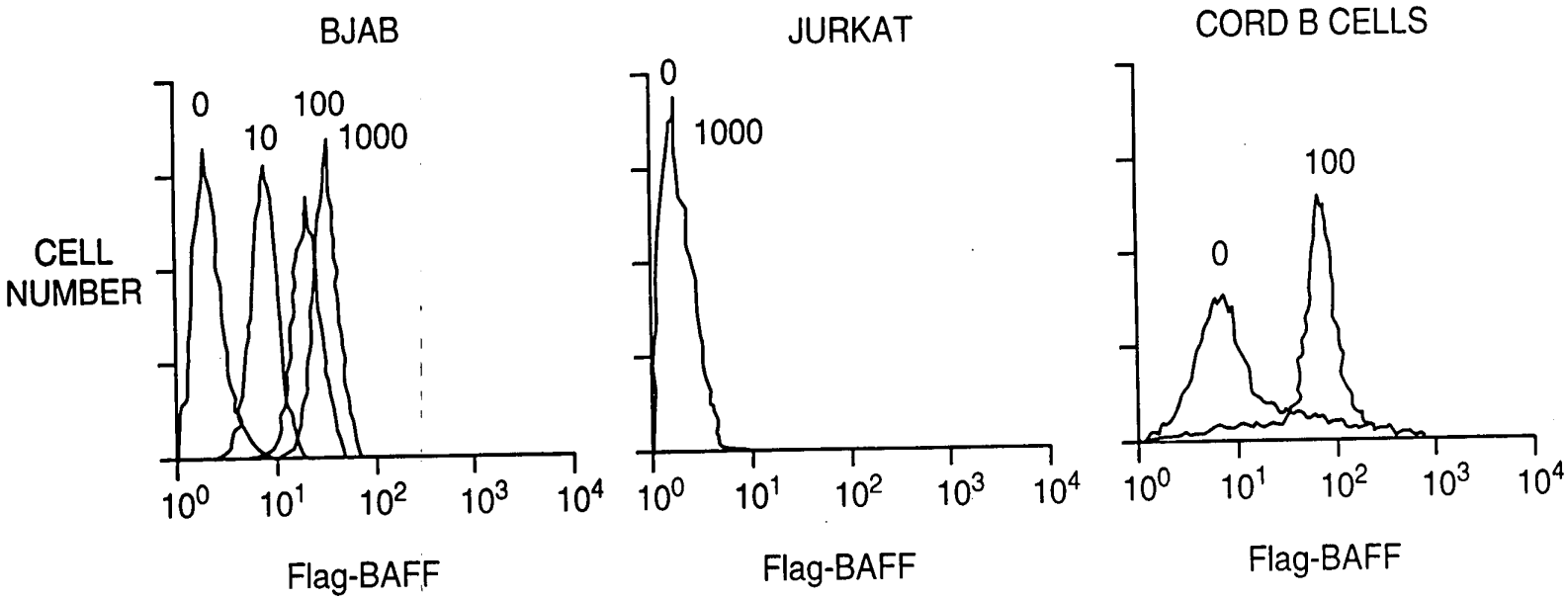
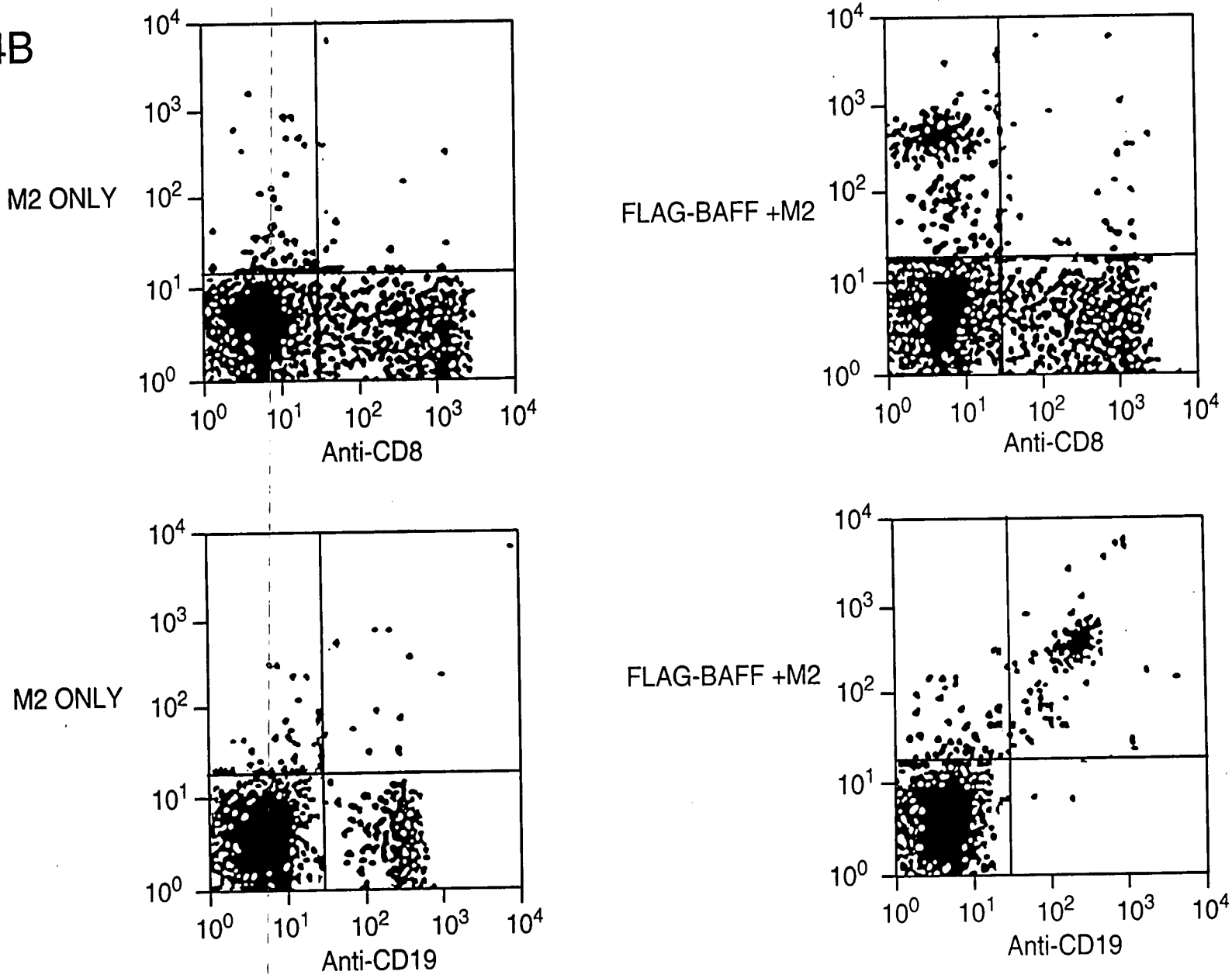

BJAB
JURKAT
CORD B CELLS
CELL NUMBER
0
10
100
1000
0
1000
0
100
10^0
10^1
10^2
10^3
10^4
Flag-BAFF
Flag-BAFF
Flag-BAFF

FIG. 4A

FIG. 4B


M2 ONLY
FLAG-BAFF +M2
M2 ONLY
FLAG-BAFF +M2
10^0
10^1
10^2
10^3
10^4
Anti-CD8
Anti-CD19

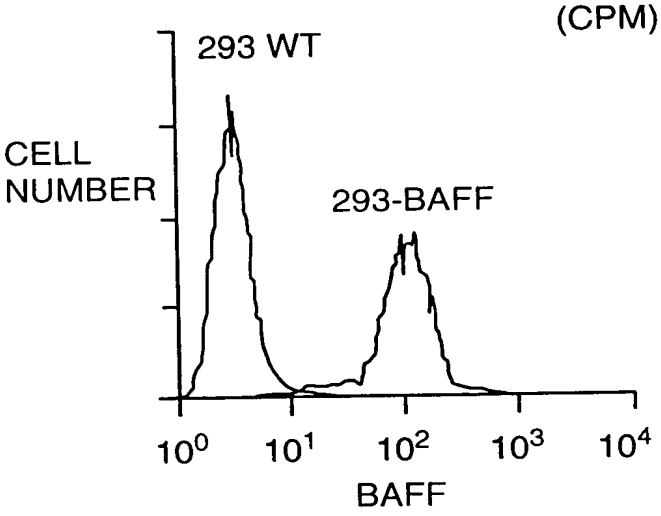


FIG. 5A

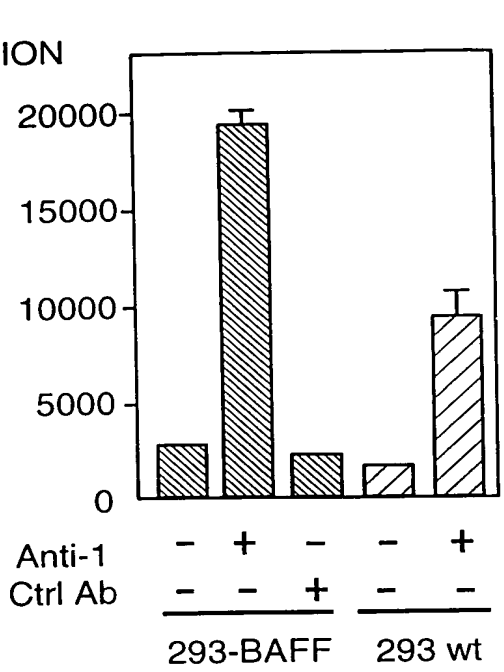


FIG. 5B

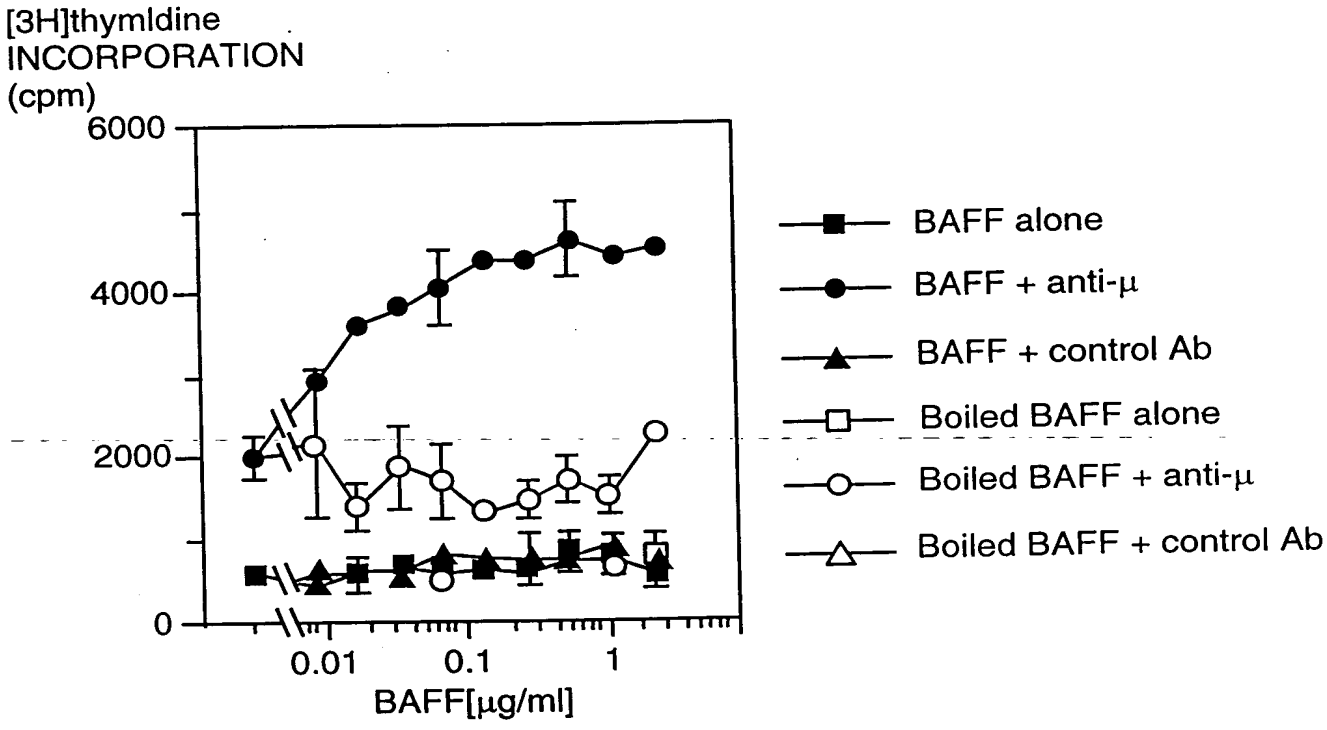


FIG. 5C

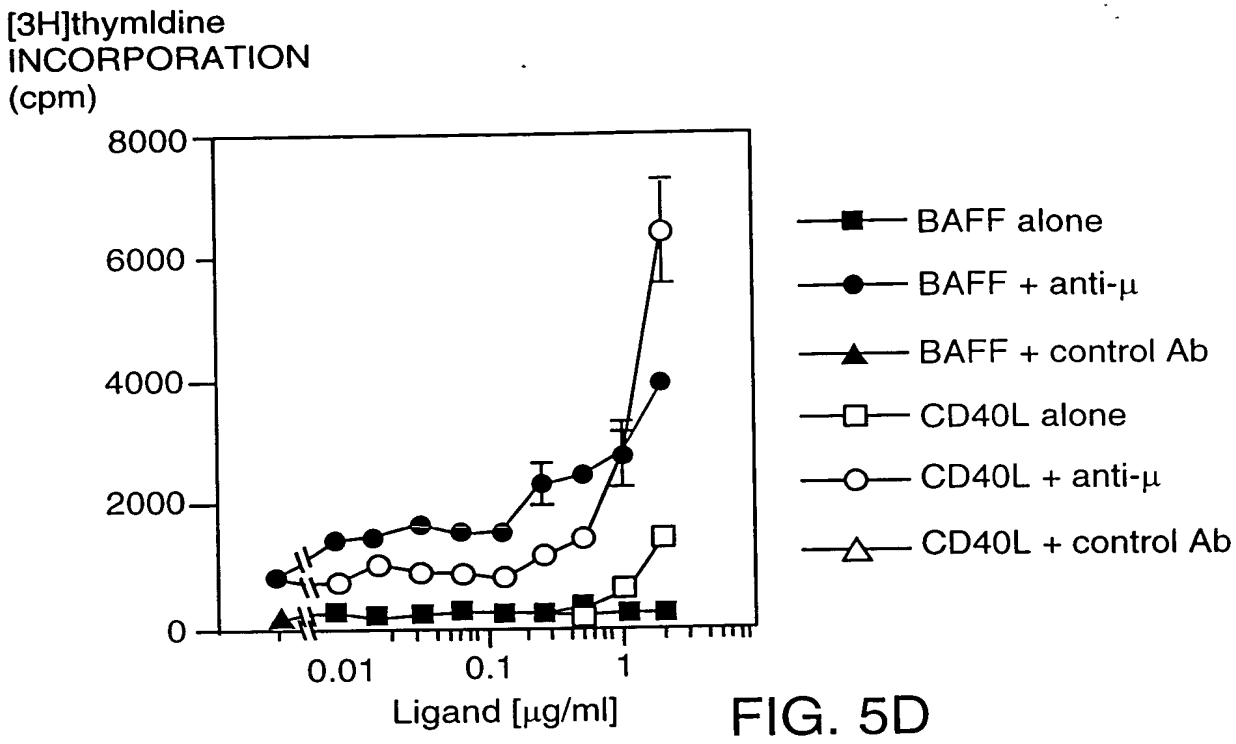


FIG. 5D

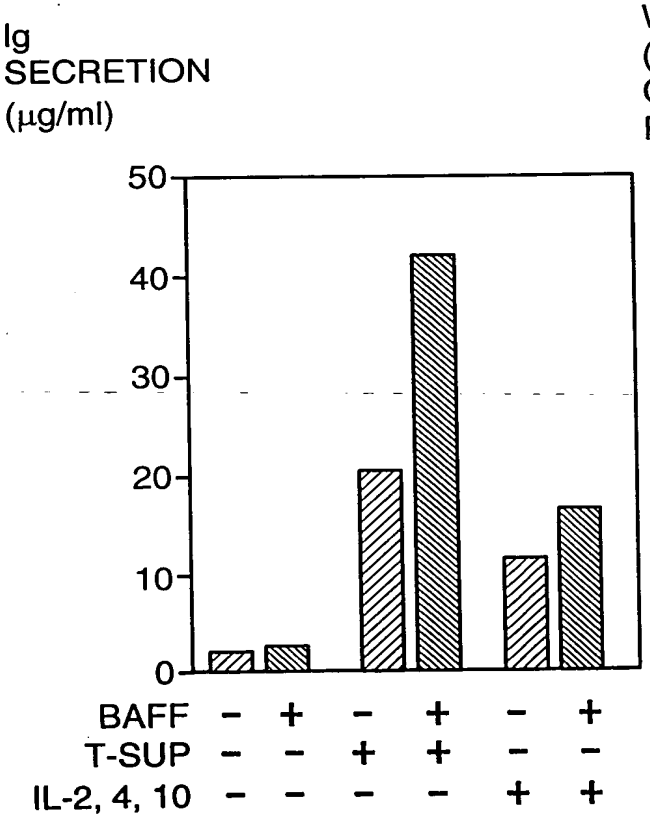


FIG. 5E

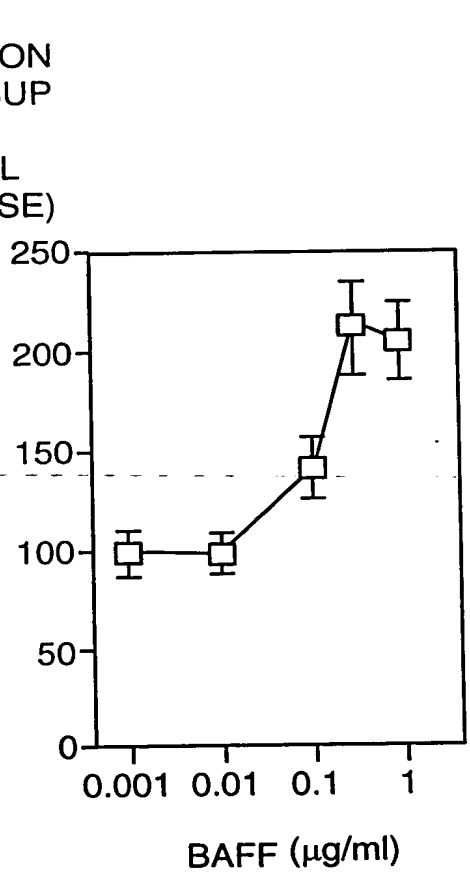


FIG. 5F

BAFF ACTS AS A COFACTOR FOR B CELL PROLIFERATION

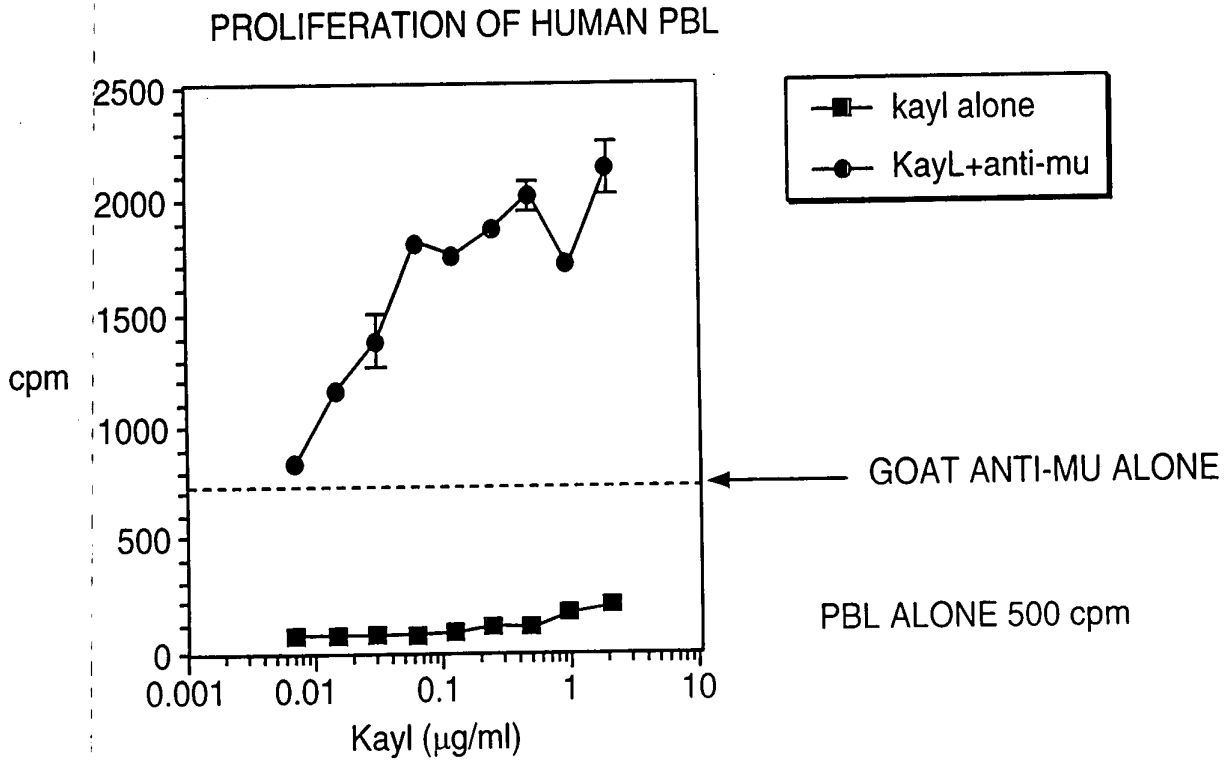


FIG. 6

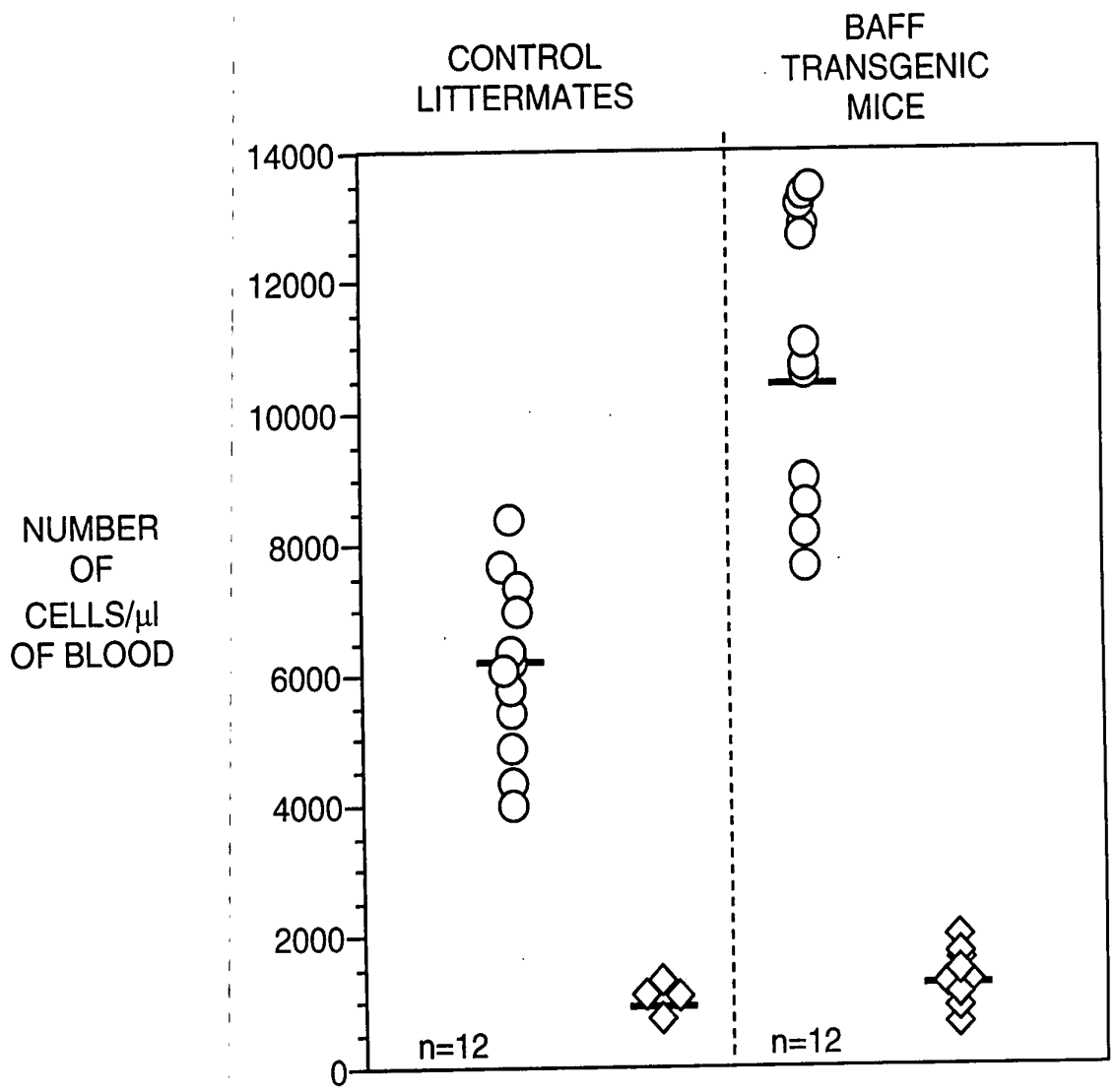

CONTROL
LITTERMATES
BAFF
TRANSGENIC
MICE
NUMBER
OF
CELLS/μl
OF BLOOD
14000
12000
10000
8000
6000
4000
2000
0
n=12
n=12

FIG. 7A

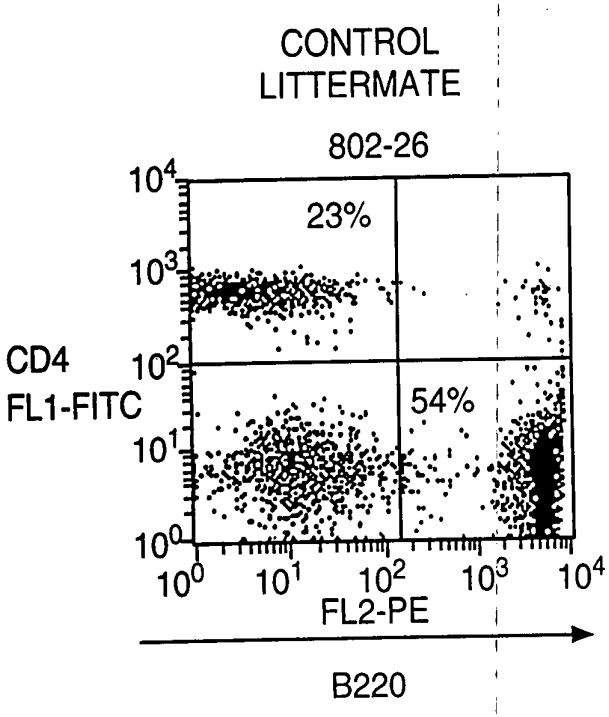


FIG. 7B-1

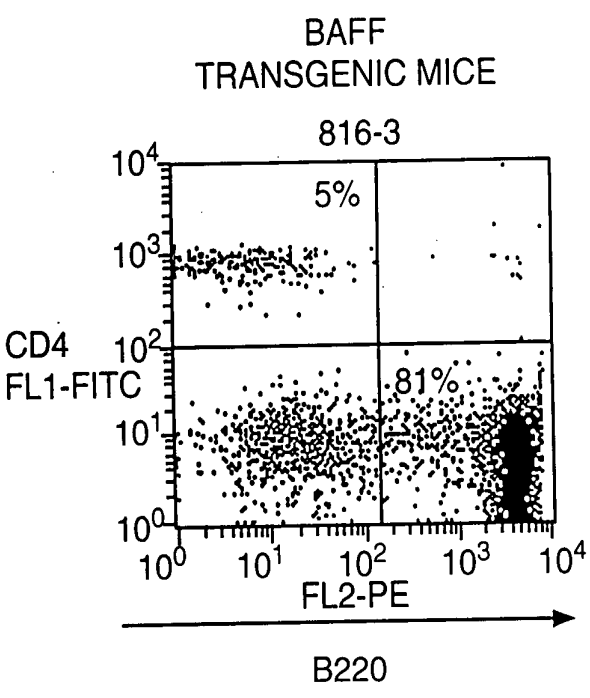


FIG. 7B-2

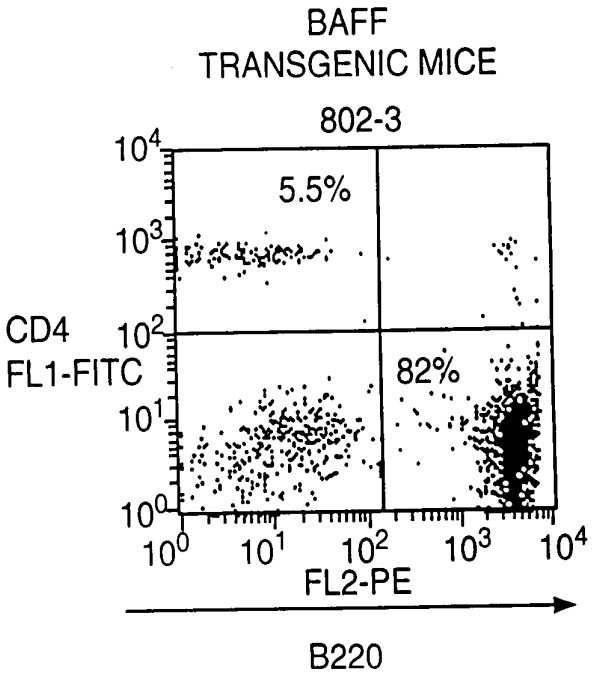


FIG. 7B-3

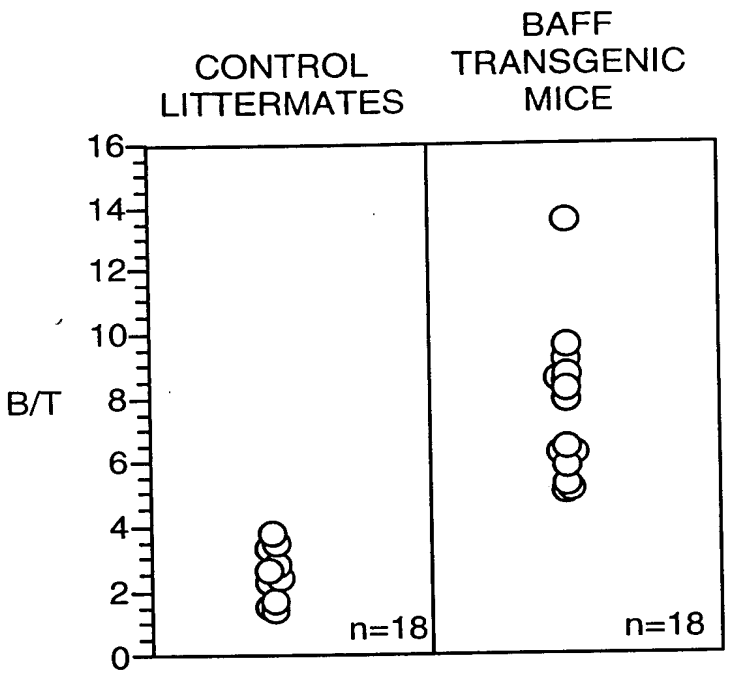

CONTROL LITTERMATES
BAFF TRANSGENIC MICE
B/T
16
14
12
10
8
6
4
2
0
n=18
n=18

FIG. 7C

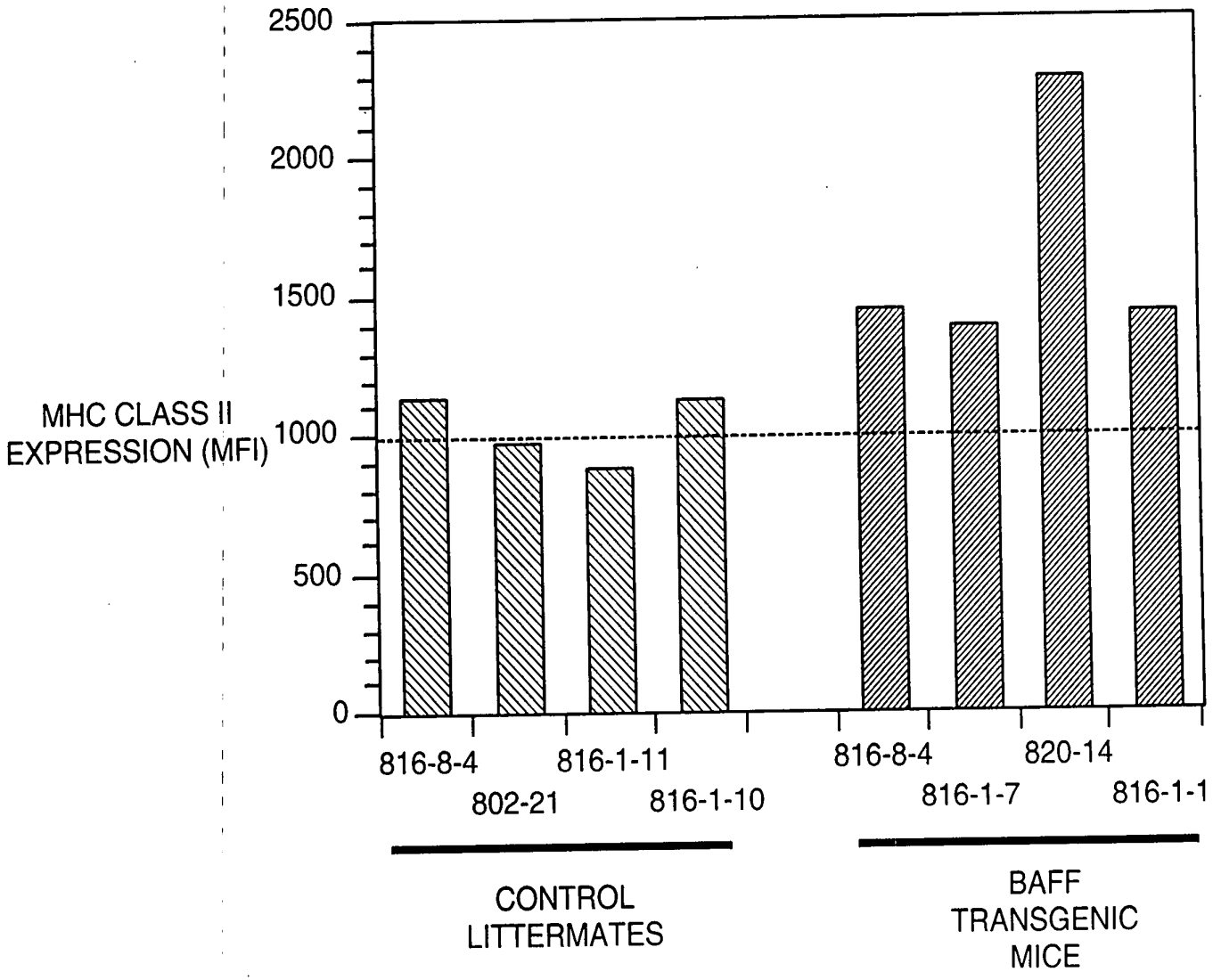

2500
2000
1500
1000
500
0
MHC CLASS II
EXPRESSION (MFI)
816-8-4
802-21
816-1-11
816-1-10
816-8-4
816-1-7
820-14
816-1-1
CONTROL
LITTERMATES
BAFF
TRANSGENIC
MICE

FIG. 7D

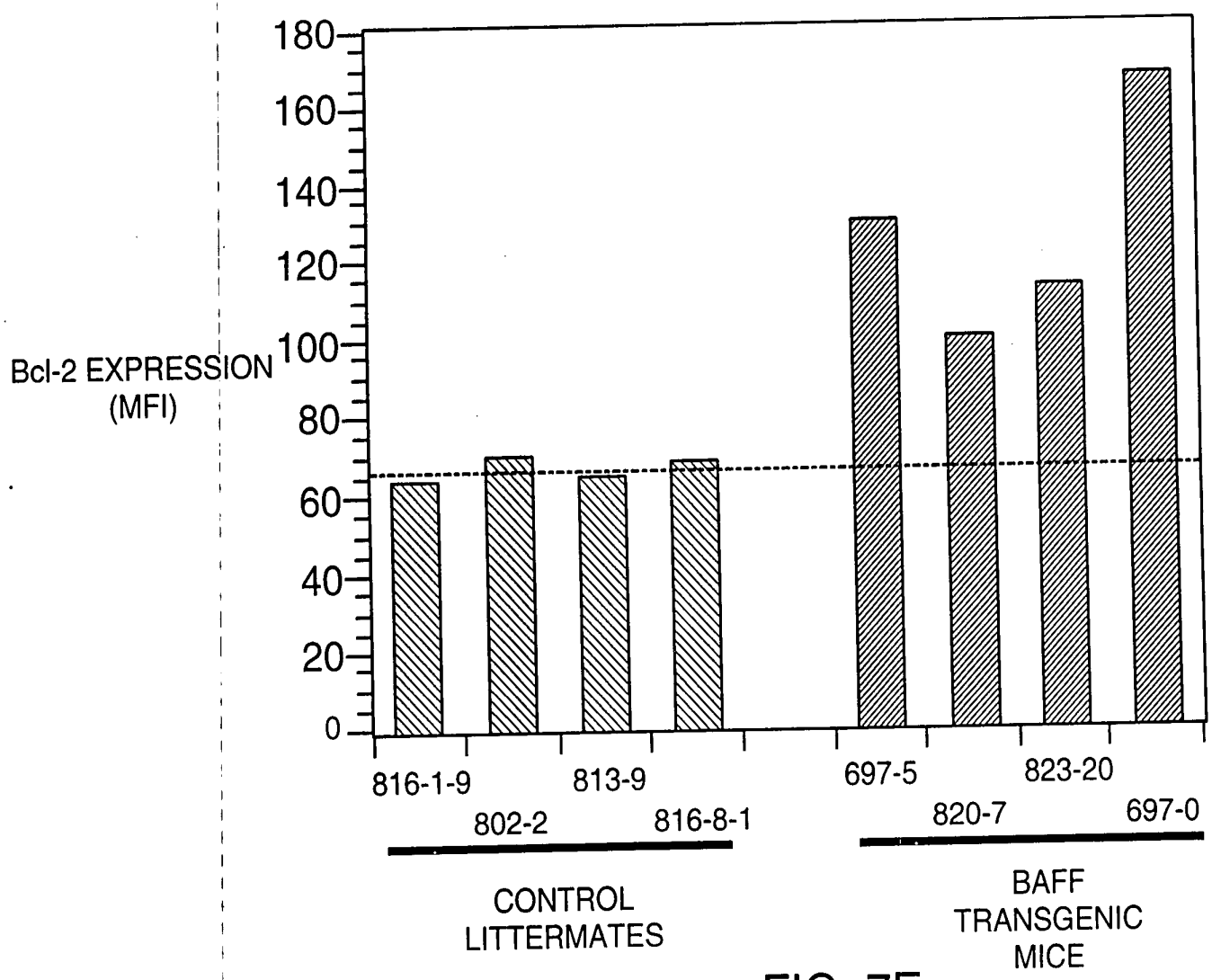

Bcl-2 EXPRESSION
(MFI)
180
160
140
120
100
80
60
40
20
0
816-1-9
802-2
813-9
816-8-1
697-5
820-7
823-20
697-0
CONTROL
LITTERMATES
BAFF
TRANSGENIC
MICE

FIG. 7E

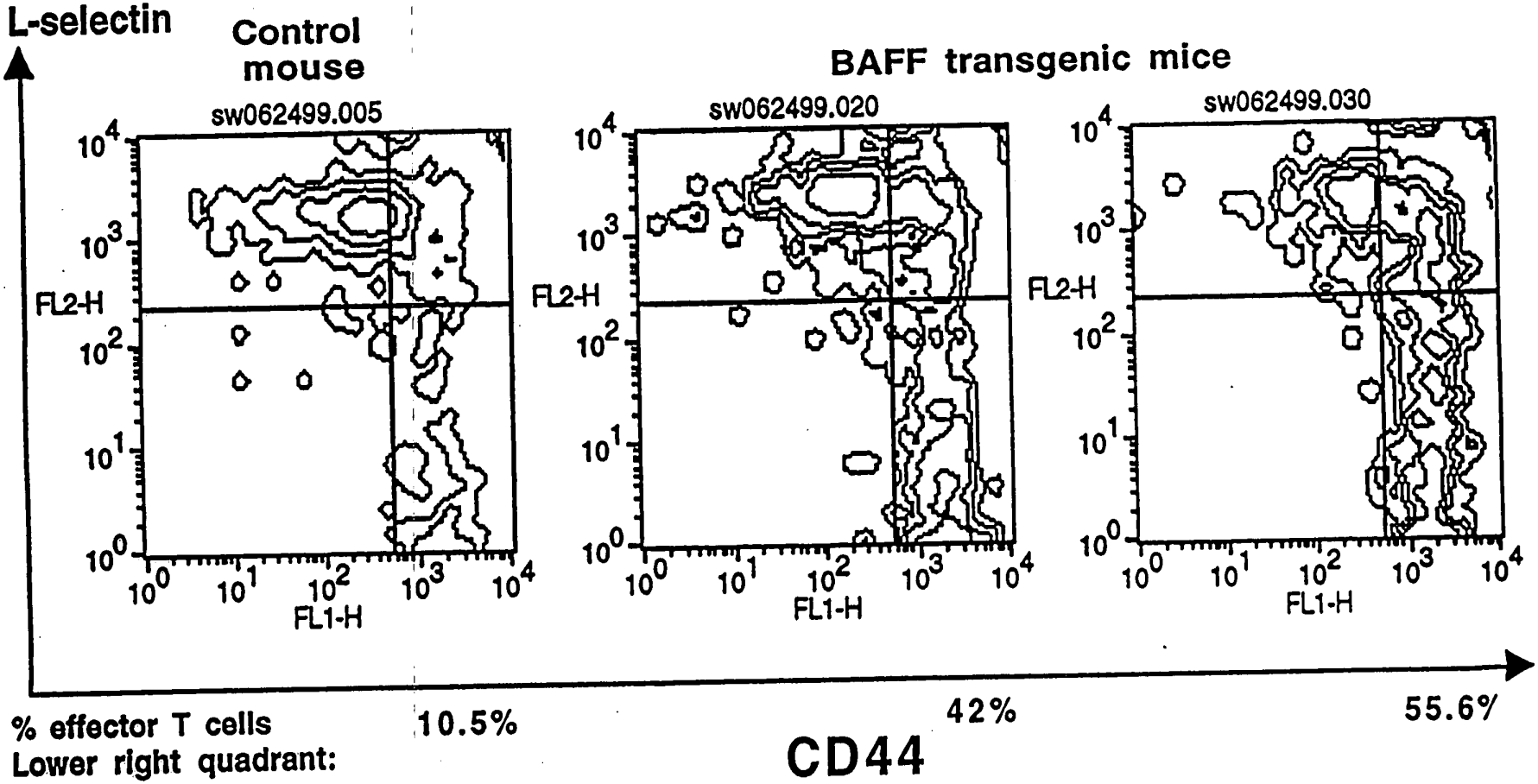

L-selectin
Control mouse
BAFF transgenic mice
sw062499.005
sw062499.020
sw062499.030
FL2-H
FL1-H
10^0
10^1
10^2
10^3
10^4
% effector T cells
Lower right quadrant:
10.5%
42%
55.6%
CD44

FIG. 7F

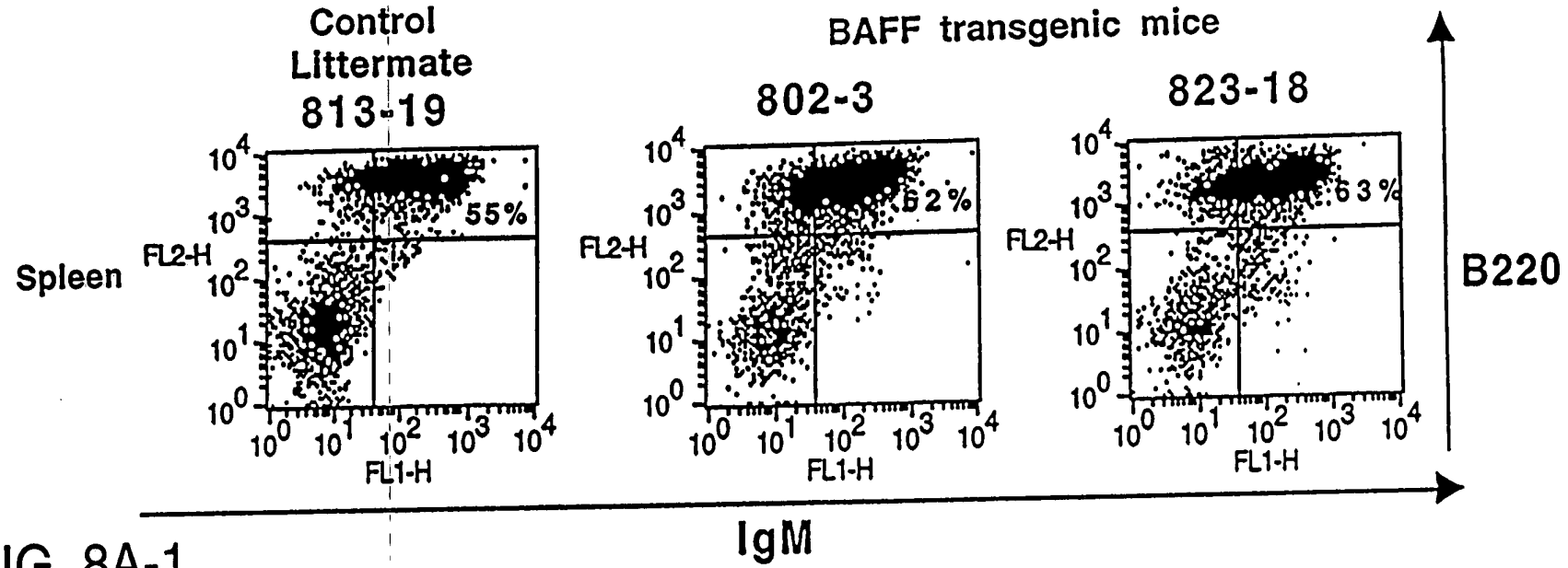


FIG. 8A-1

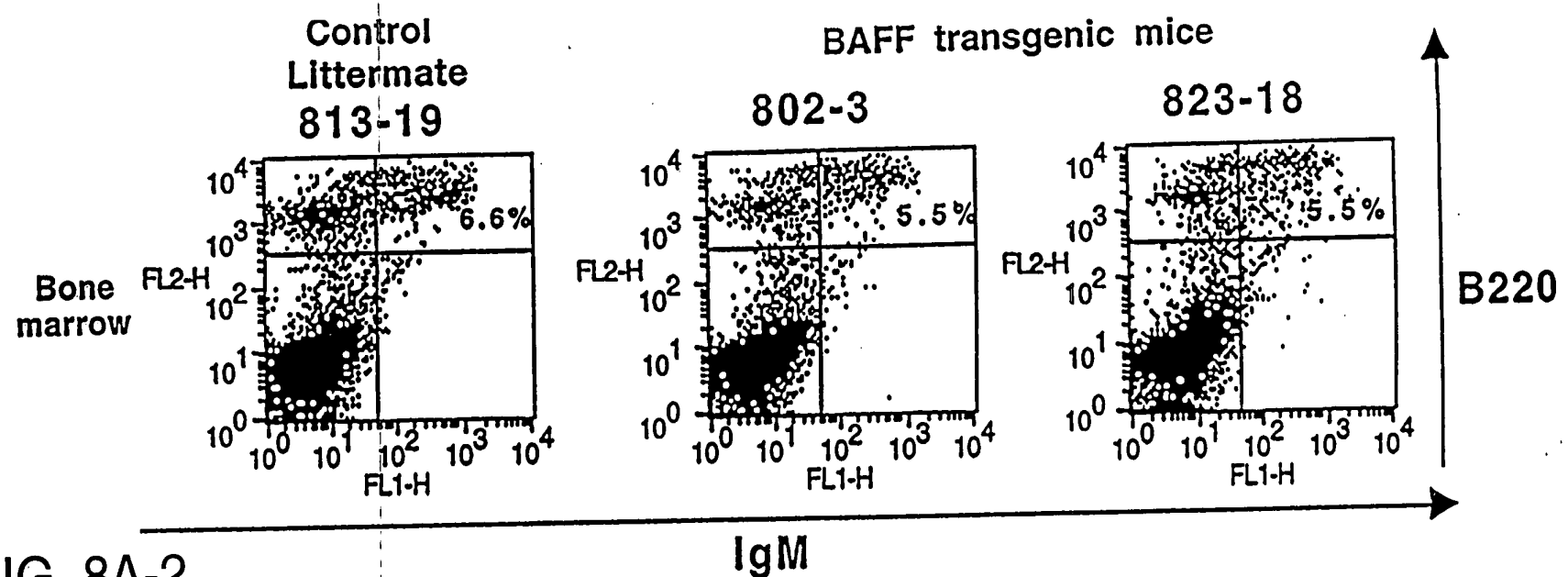


FIG. 8A-2

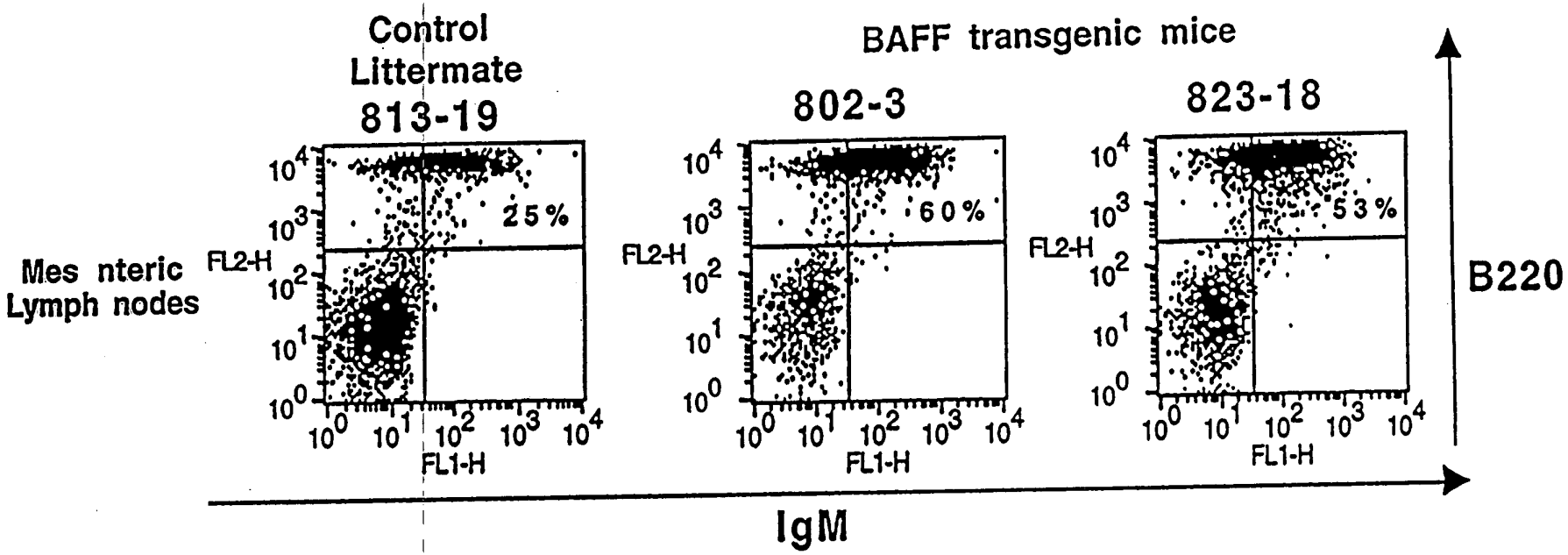

Control
Littermate
813-19
BAFF transgenic mice
802-3
823-18
Mes nteric
Lymph nodes
FL2-H
FL1-H
25%
60%
53%
B220
IgM

FIG. 8A-3

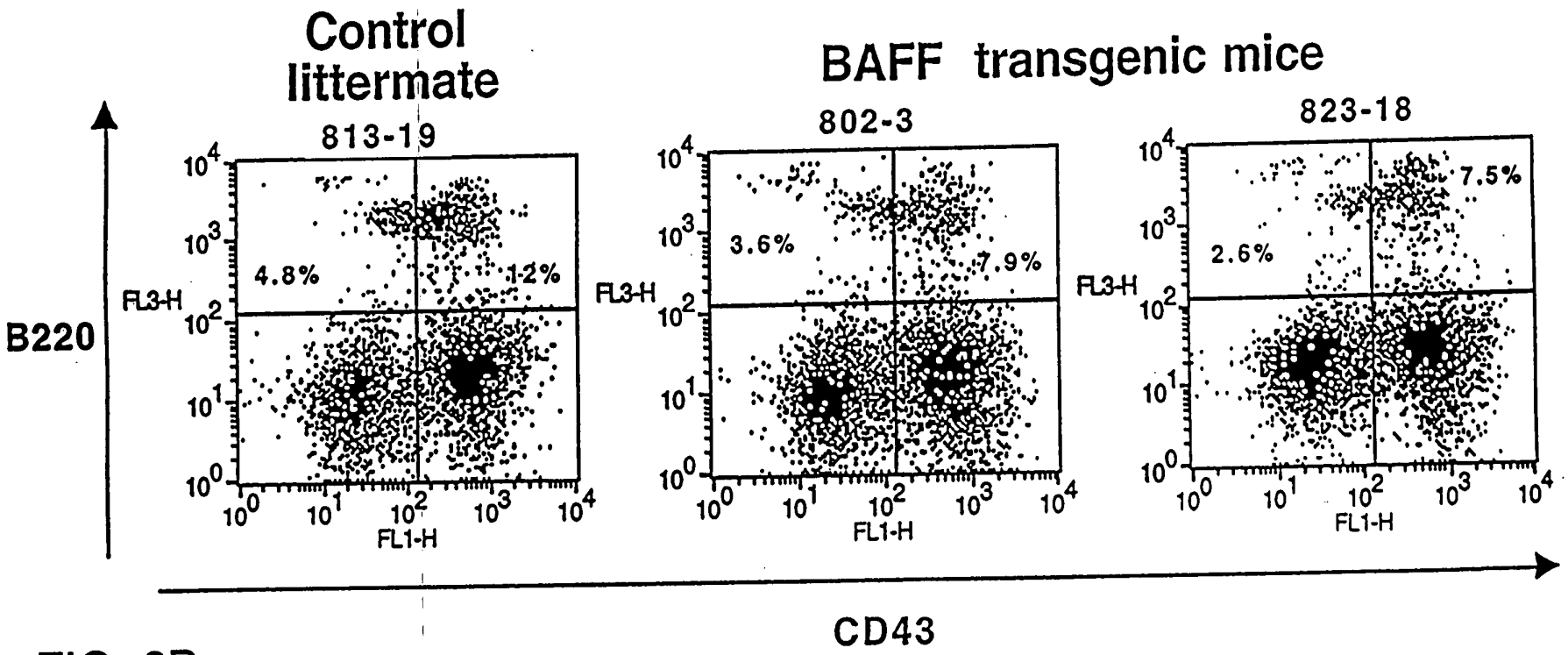

Control littermate
813-19
BAFF transgenic mice
802-3
823-18
B220
CD43
FL3-H
FL1-H
4.8%
1.2%
3.6%
7.9%
2.6%
7.5%

FIG. 8B

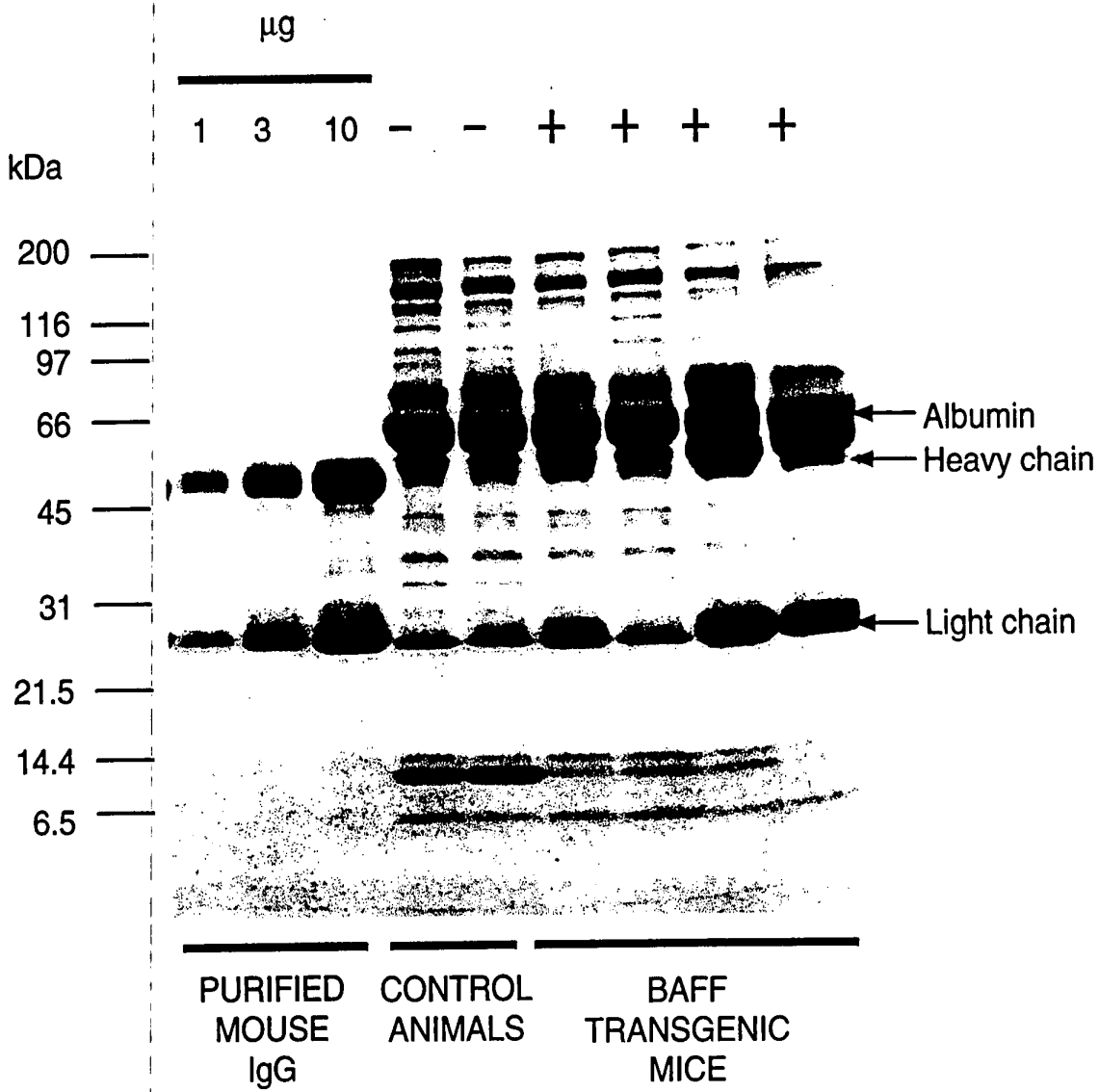

µg
1
3
10
–
–
+
+
+
+
kDa
200
116
97
66
45
31
21.5
14.4
6.5
Albumin
Heavy chain
Light chain
PURIFIED MOUSE IgG
CONTROL ANIMALS
BAFF TRANSGENIC MICE

FIG. 9A

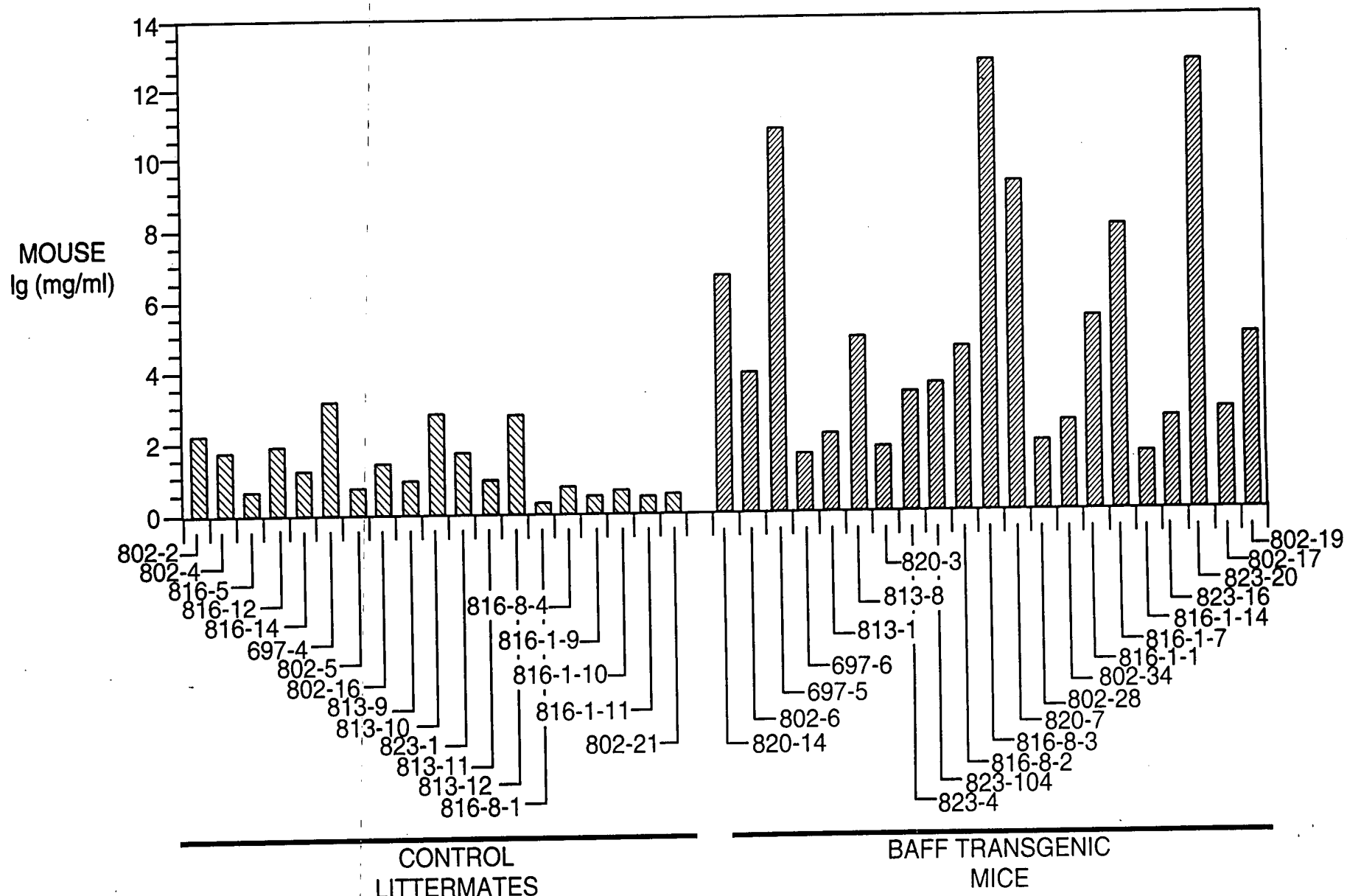

MOUSE
Ig (mg/ml)
14
12
10
8
6
4
2
0
802-2
802-4
816-5
816-12
816-14
697-4
802-5
802-16
813-9
813-10
823-1
813-11
813-12
816-8-1
816-8-4
816-1-9
816-1-10
816-1-11
802-21
820-14
802-6
697-5
697-6
813-1
813-8
820-3
823-4
823-104
816-8-2
816-8-3
820-7
802-28
802-34
816-1-1
816-1-7
816-1-14
823-16
823-20
802-17
802-19
CONTROL
LITTERMATES
BAFF TRANSGENIC
MICE

FIG. 9B

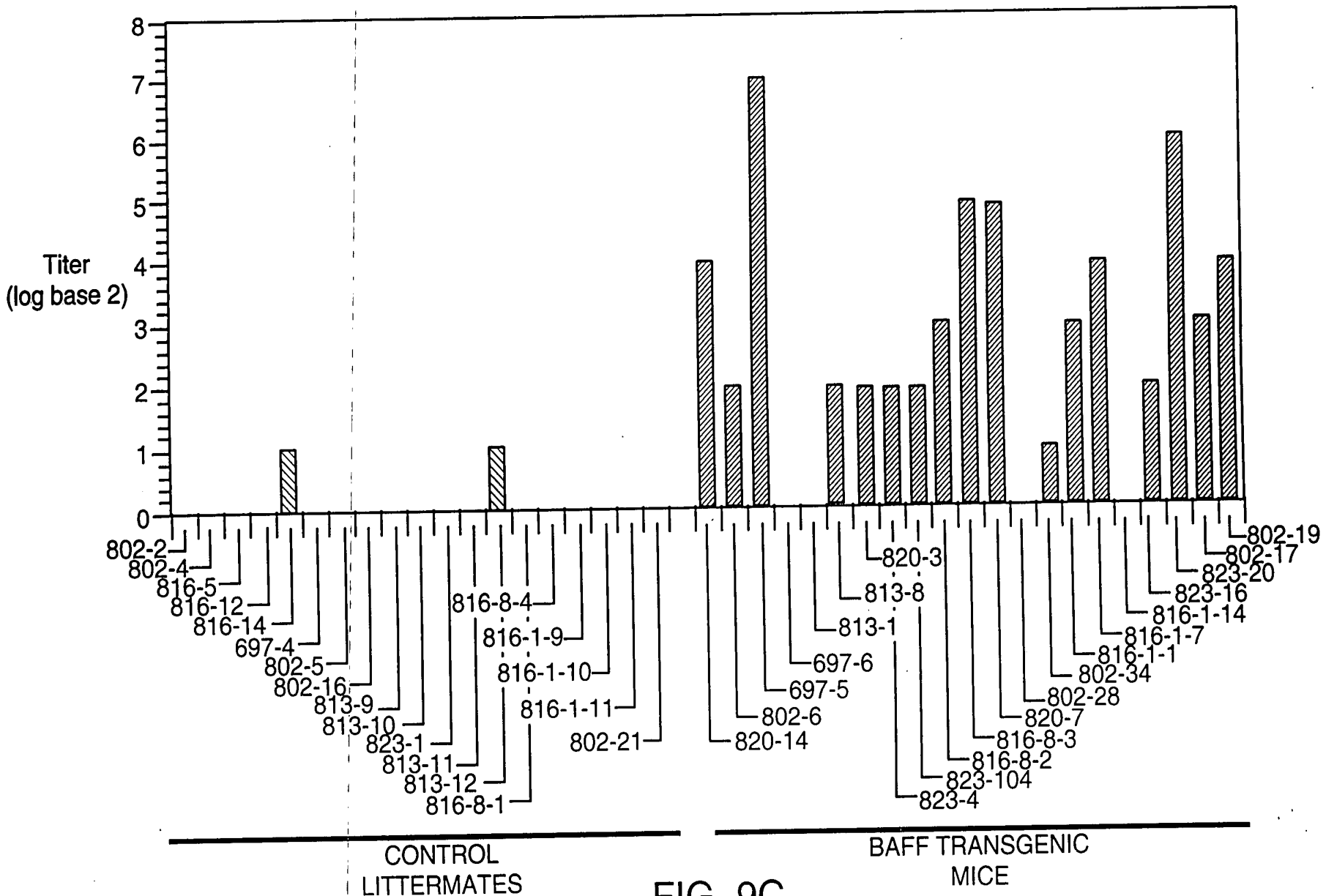

Titer
(log base 2)
0
1
2
3
4
5
6
7
8
802-2
802-4
816-5
816-12
816-14
697-4
802-5
802-16
813-9
813-10
823-1
813-11
813-12
816-8-1
816-8-4
816-1-9
816-1-10
816-1-11
802-21
820-14
802-6
697-5
697-6
813-1
813-8
820-3
823-4
823-104
816-8-2
816-8-3
820-7
802-28
802-34
816-1-1
816-1-7
816-1-14
823-16
823-20
802-17
802-19
CONTROL
LITTERMATES
BAFF TRANSGENIC
MICE

FIG. 9C

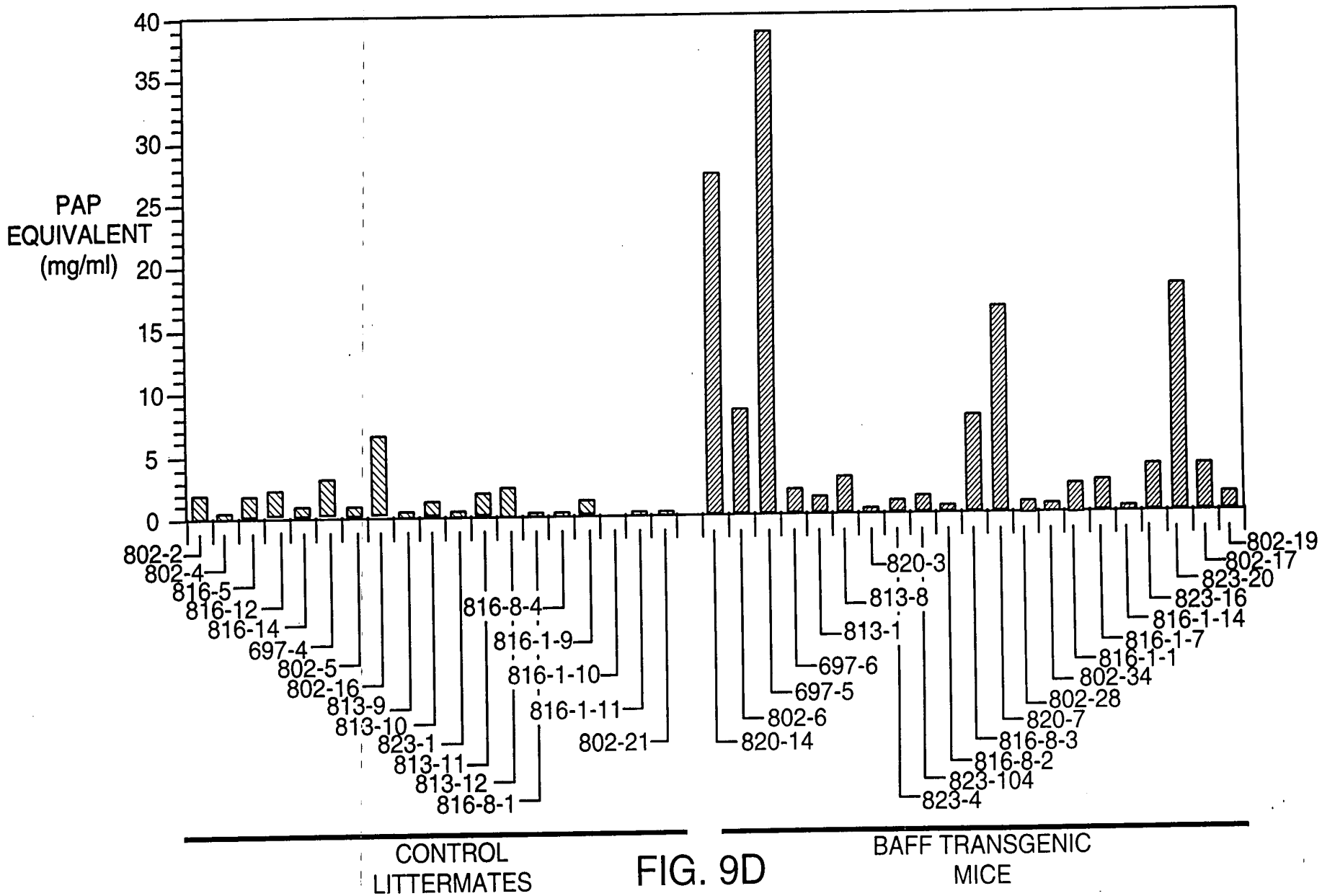

PAP EQUIVALENT (mg/ml)
40
35
30
25
20
15
10
5
0
802-2
802-4
816-5
816-12
816-14
697-4
802-5
802-16
813-9
813-10
823-1
813-11
813-12
816-8-1
816-8-4
816-1-9
816-1-10
816-1-11
802-21
820-14
802-6
697-5
697-6
813-1
813-8
820-3
823-4
823-104
816-8-2
816-8-3
820-7
802-28
802-34
816-1-1
816-1-7
816-1-14
823-16
823-20
802-17
802-19
CONTROL LITTERMATES
BAFF TRANSGENIC MICE

FIG. 9D

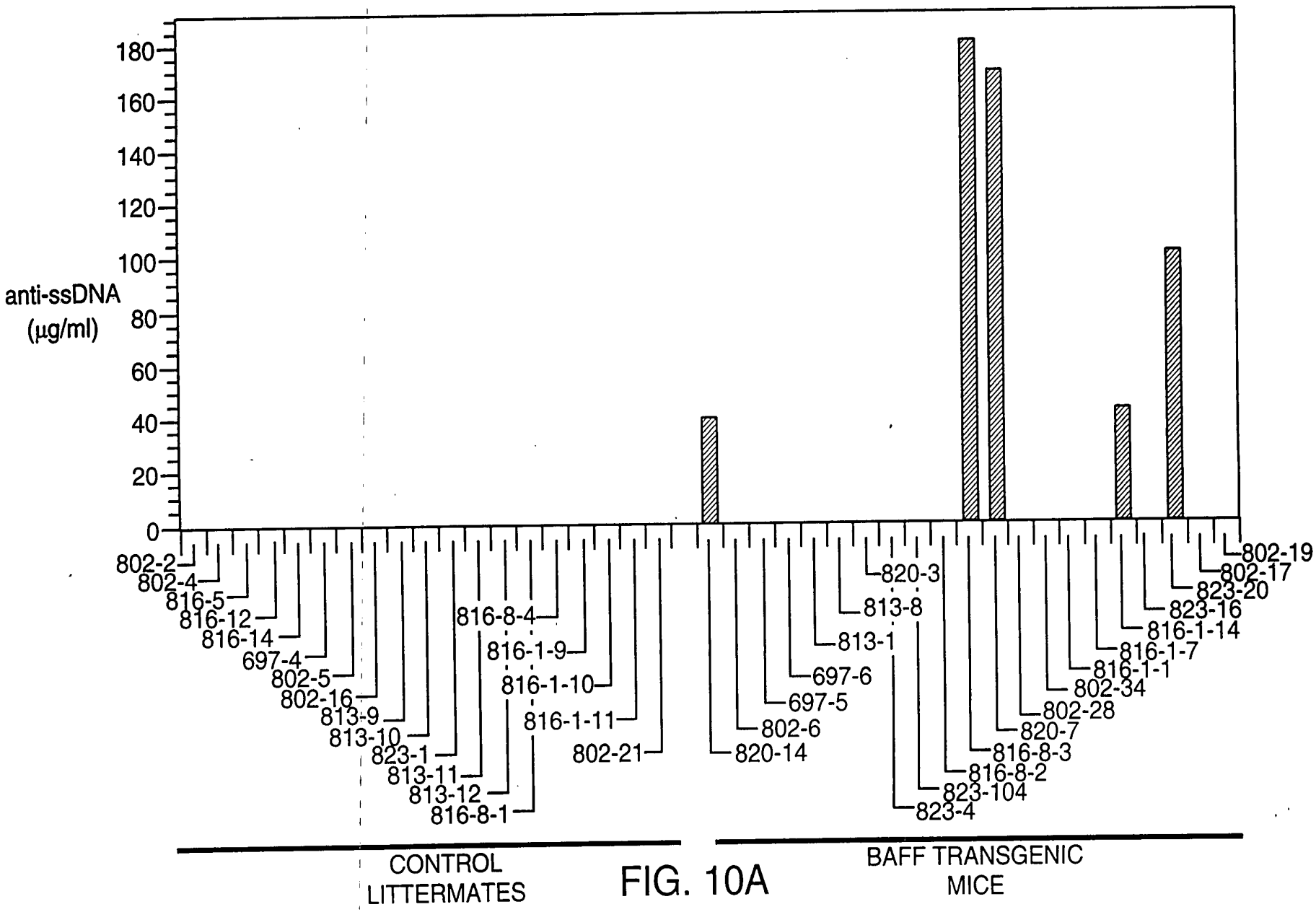

anti-ssDNA
(µg/ml)
180
160
140
120
100
80
60
40
20
0
802-2
802-4
816-5
816-12
816-14
697-4
802-5
802-16
813-9
813-10
823-1
813-11
813-12
816-8-1
816-8-4
816-1-9
816-1-10
816-1-11
802-21
820-14
802-6
697-5
697-6
813-1
813-8
820-3
823-4
823-104
816-8-2
816-8-3
820-7
802-28
802-34
816-1-1
816-1-7
816-1-14
823-16
823-20
802-17
802-19
CONTROL
LITTERMATES
BAFF TRANSGENIC
MICE

FIG. 10A

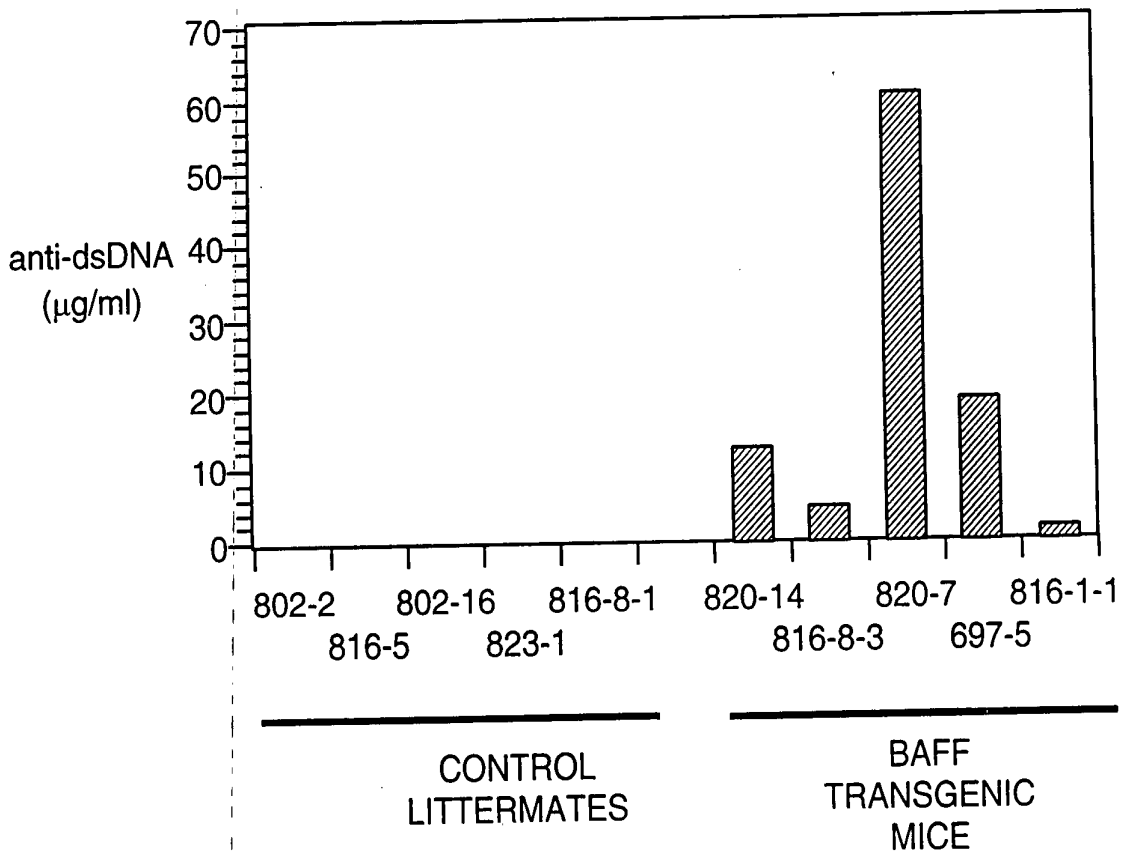

anti-dsDNA
(μg/ml)
70
60
50
40
30
20
10
0
802-2
816-5
802-16
823-1
816-8-1
820-14
816-8-3
820-7
697-5
816-1-1
CONTROL
LITTERMATES
BAFF
TRANSGENIC
MICE

FIG. 10B

Control animal

BAFF transgenic mouse

FIG. 10C

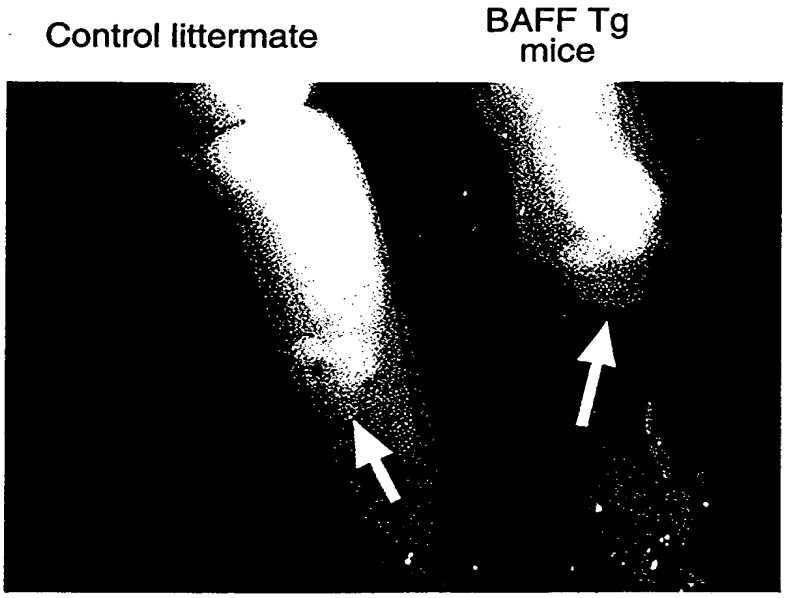


FIG. 11

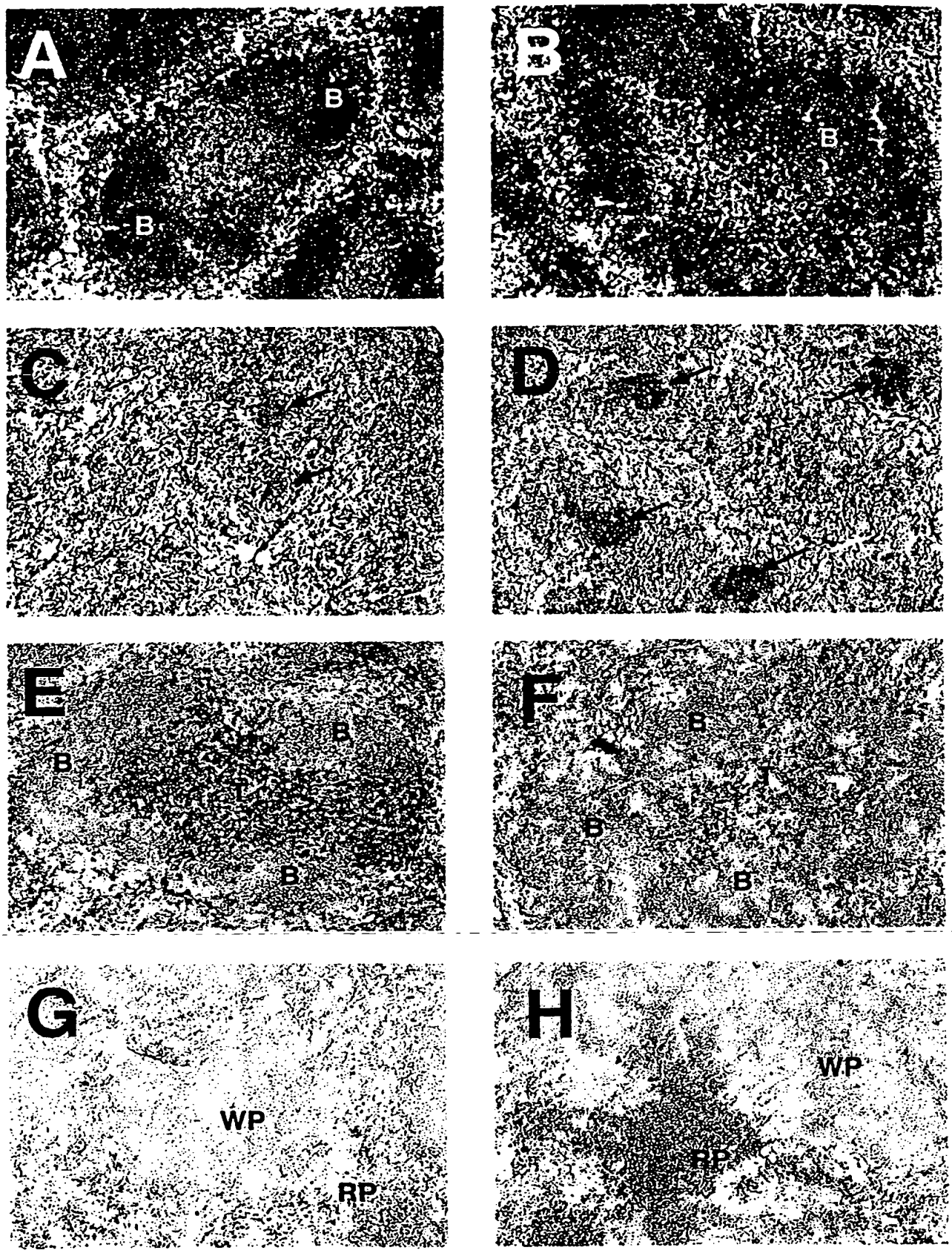


FIG. 12

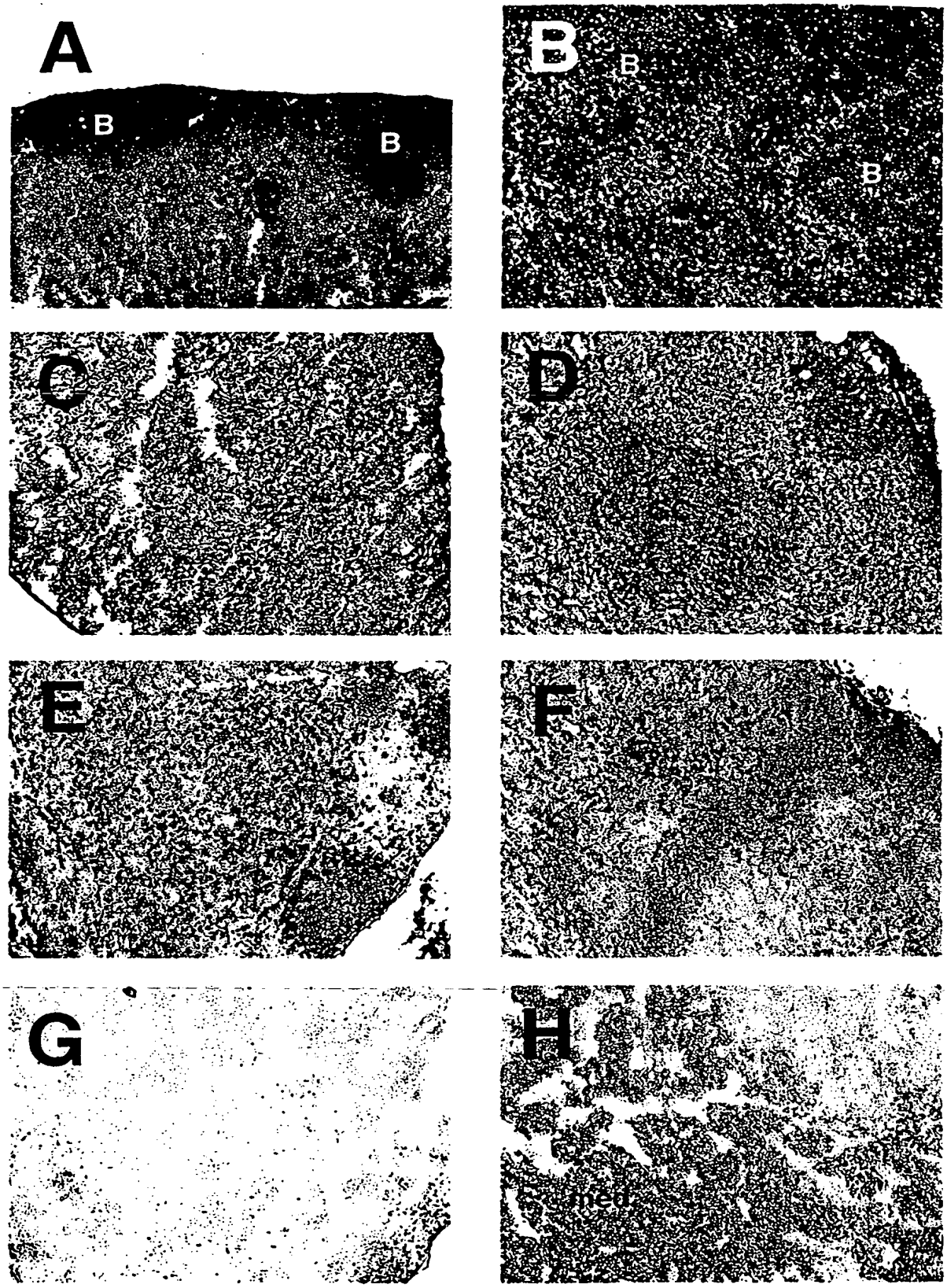
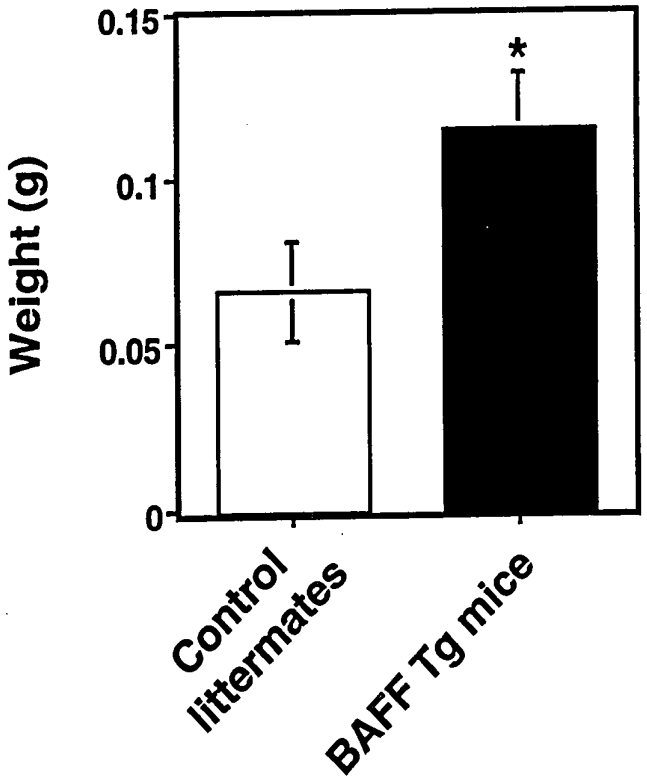


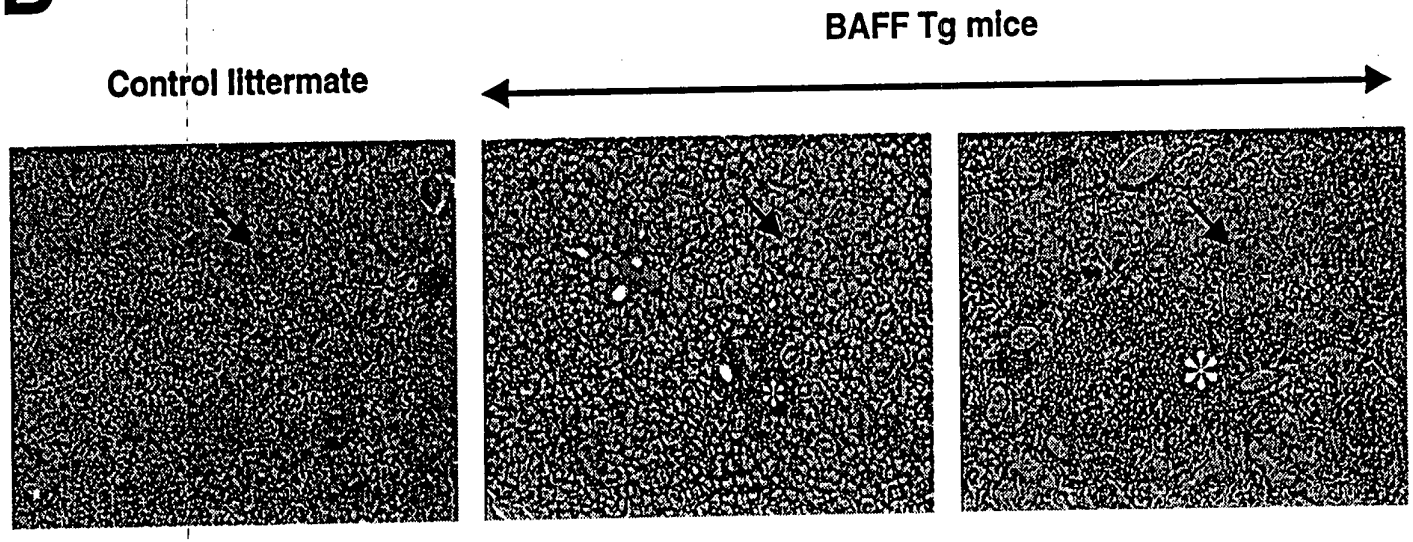
FIG. 13

Fig. 14 **A**



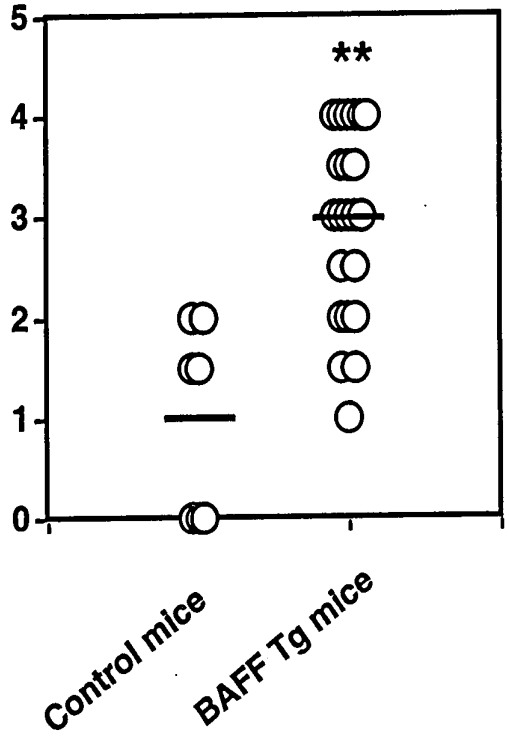
F. Mackay 2001, Fig. 1

Fig. 14B



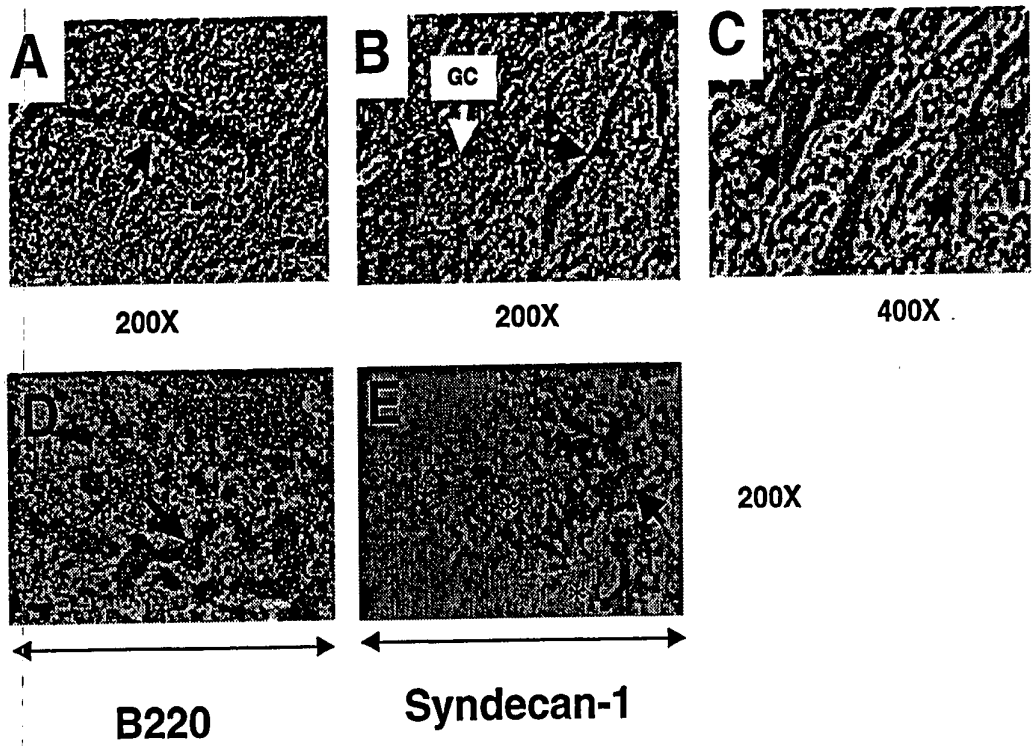
F. Mackay 2001, Fig. 1

Fig. 14C



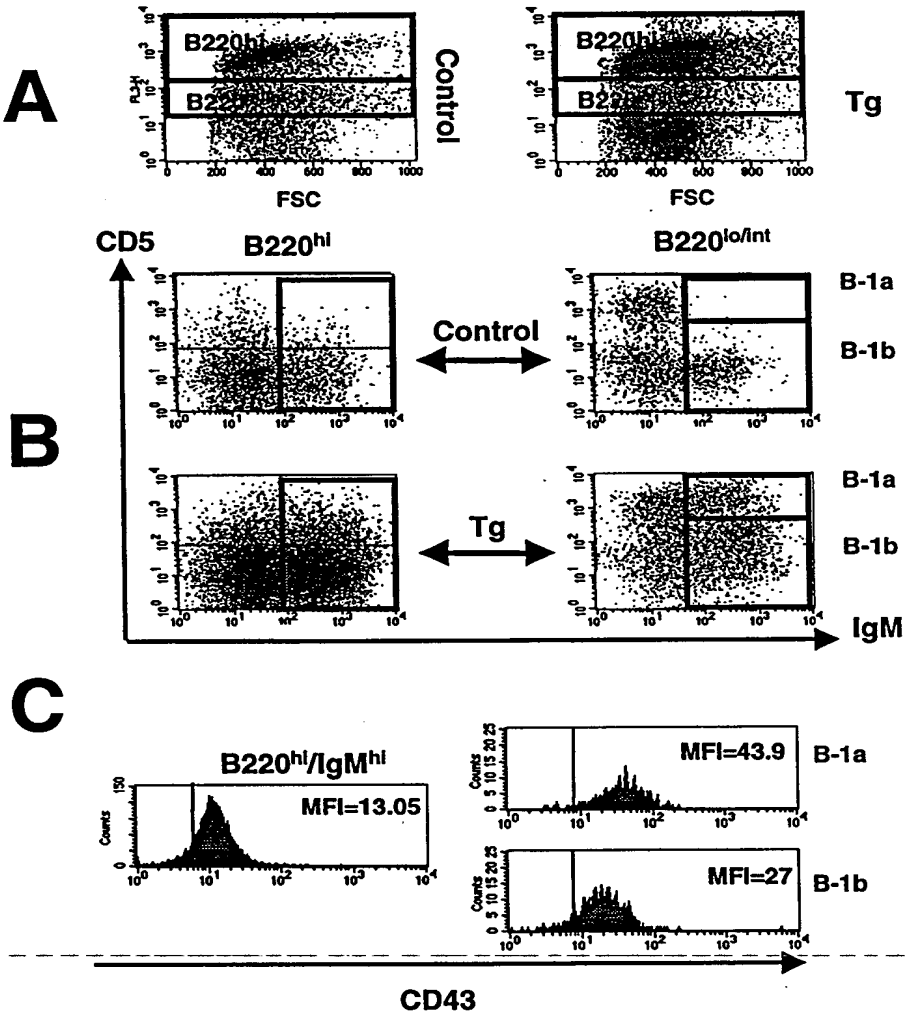
F. Mackay 2001, Fig. 1

Fig. 15



F. Mackay 2001, Fig. 2

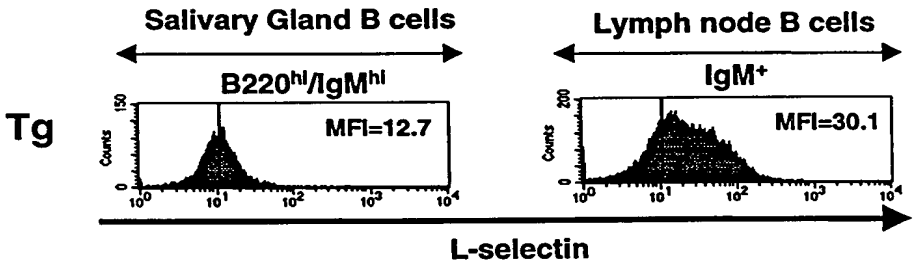
Fig 16.



F. Mackay 2001, Fig.3

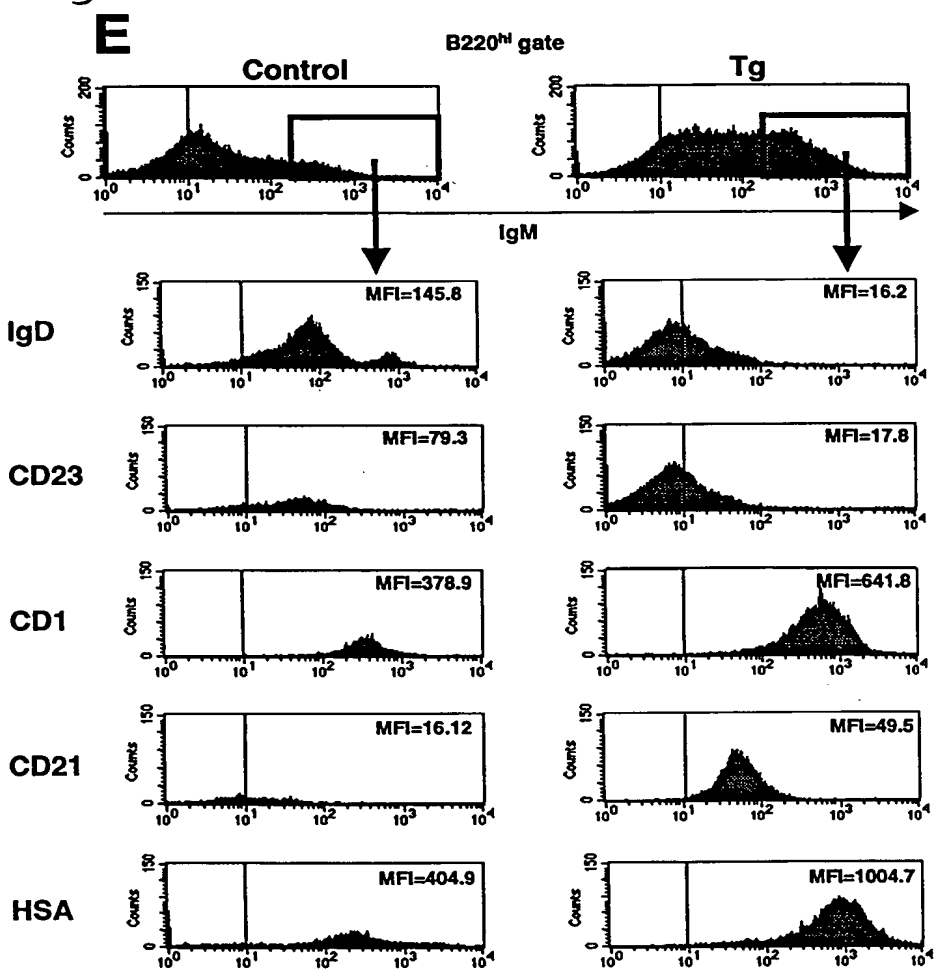
Fig 16

D



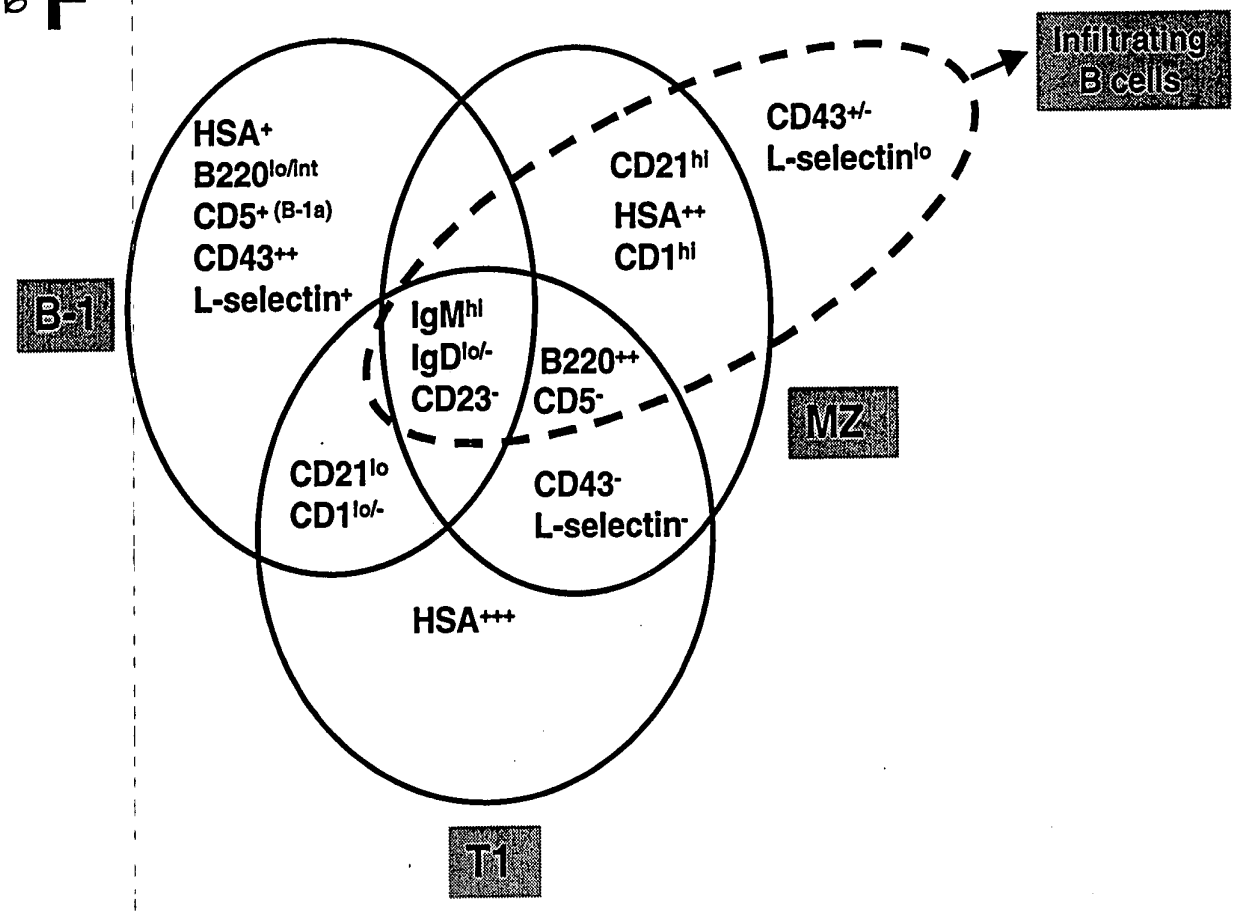
F. Mackay 2001, Fig.3

Fig 16



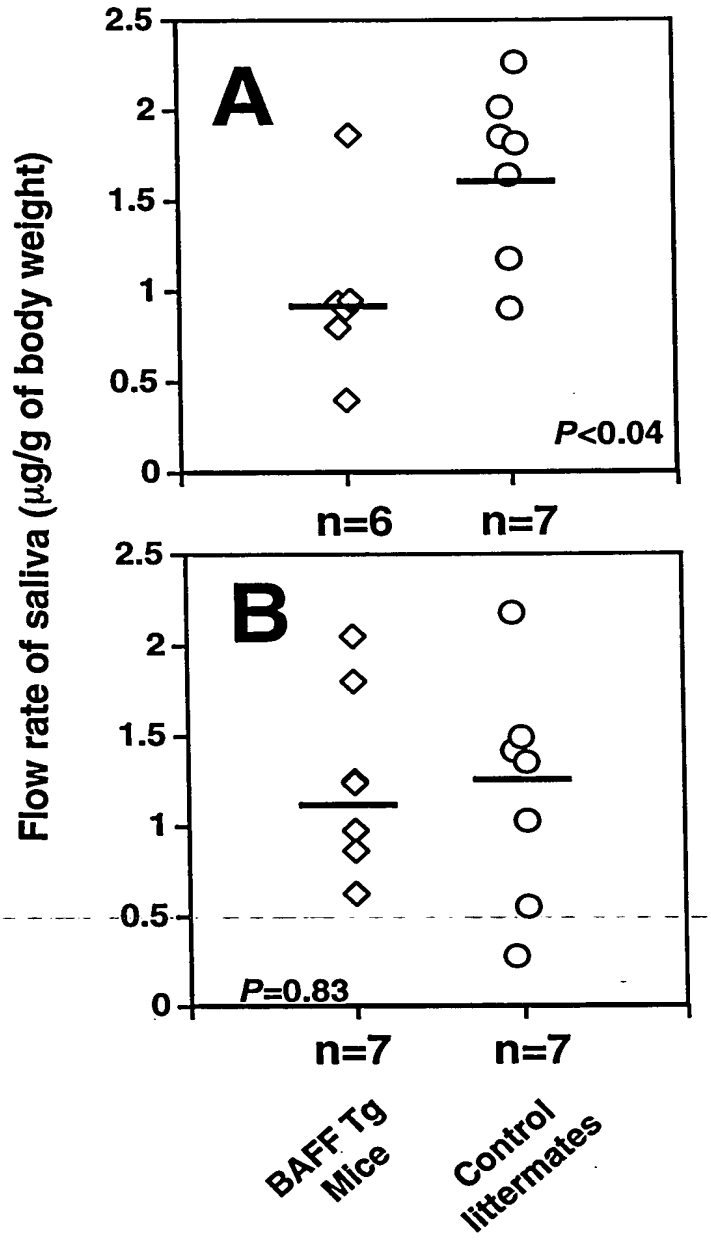
P. Mackay 2001, Fig.3

Fig. 16 **F**



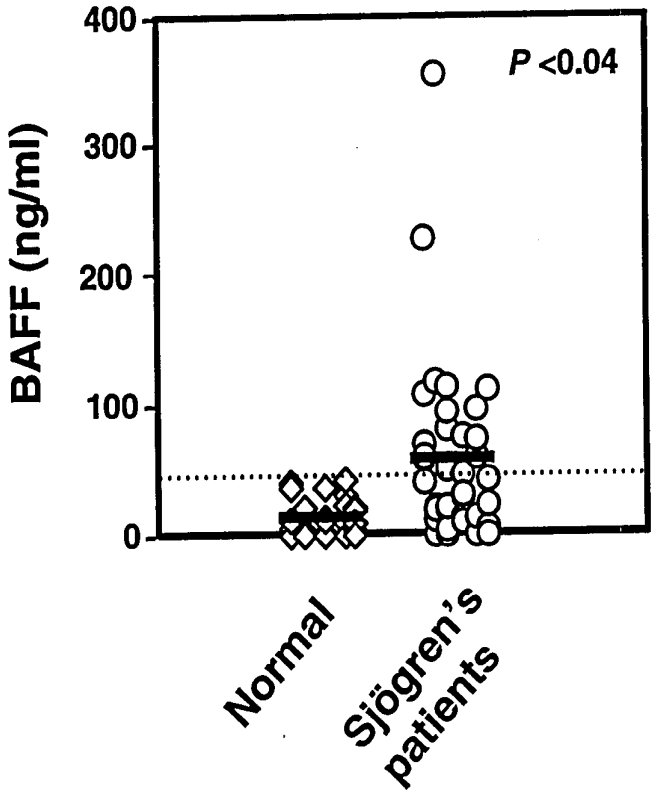
F. Mackay 2001, Fig. 3

Fig. 17



F. Mackay 2001, Fig. 4

Fig. 18A



F. Mackay 2001, Fig. 5

Fig. 18B

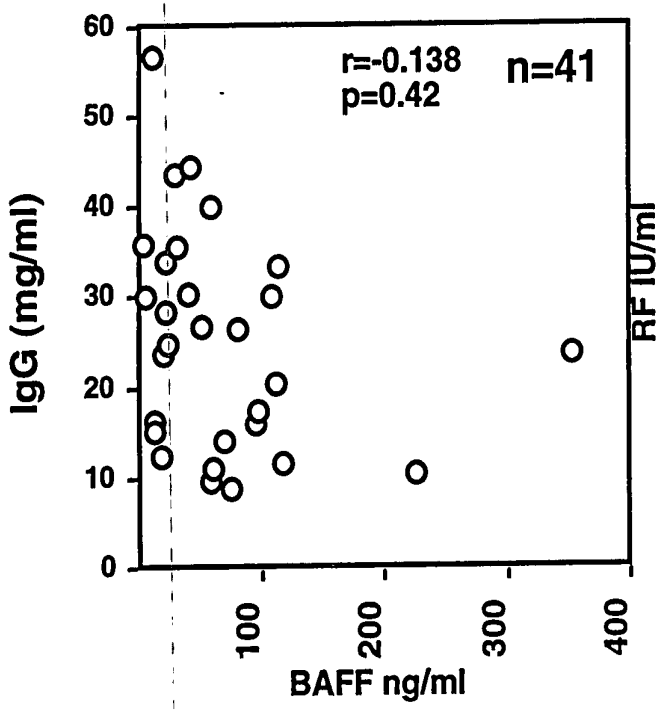
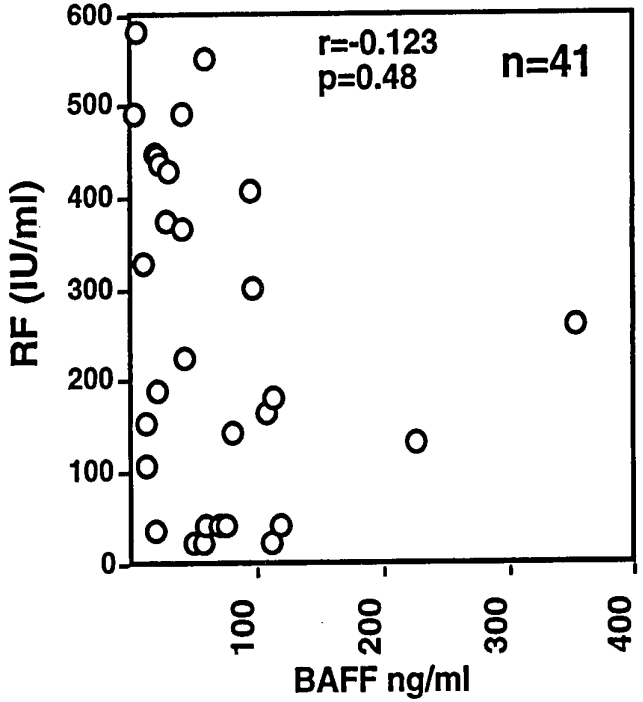
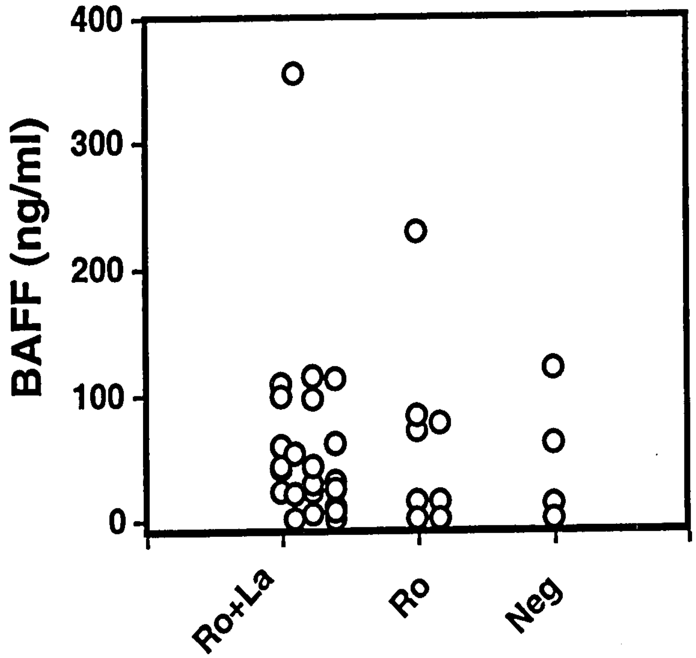


Fig. 18C



F.Mackay 2001, Fig. 5

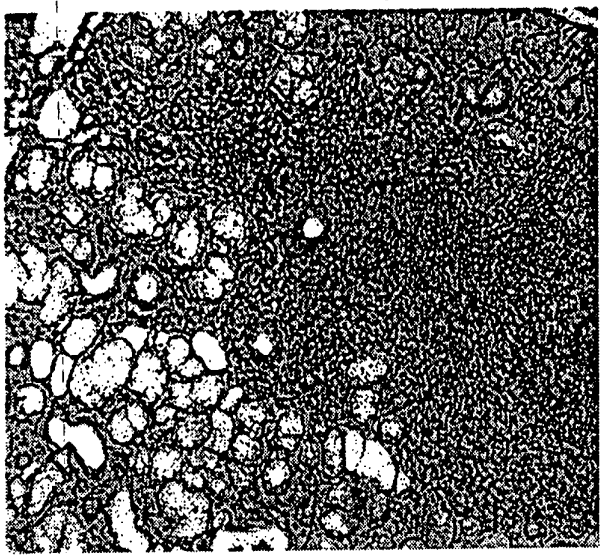
Fig. 18. D



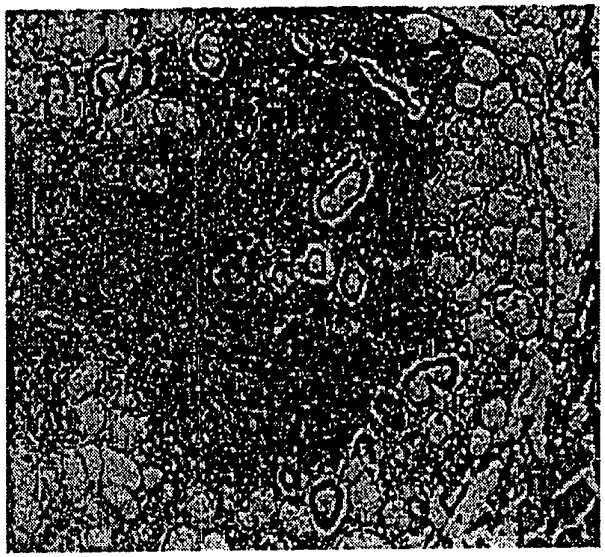
F. Mackay 2001, Fig. 5

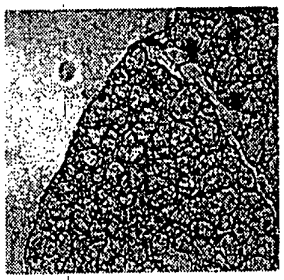
Fig. 18E

Isotype-matched control antibody



Anti-human BAFF antibody





Anti-human BAFF antibody on normal human salivary gland

F. Mackay 2001, Fig. 5